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Developing A Template For Electronic Portfolios In Career And Technical Education

By

Matthew Fowler

A DISSERTATION

Presented to the Faculty of

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Developing A Template For Electronic Portfolios In Career And Technical Education

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University of Nebraska, 2012

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The purposes of this multiple case study were to determine if manufacturing and services sector employers found value in the use of an ePortfolio in the hiring process, and to develop a suggested template for an ePortfolio format to be used within career and technical education.

Electronic portfolios “allow students to showcase their abilities in a more dynamic way....through text, graphics, and video....than a GPA or transcript ever could. And because they are digital, it is easier to share, review, and provide feedback” (Murphy, 2003, p. 1). These ePortfolios are an obvious example of an authentic assessment method that provides multiple, tangible forms of evidence of student accomplishment in a format transferable to the job search (Anderson-Lewis & Cooley, 1995). However, there was a lack of research that attempted to discover if employers outside the field of education found value in using tools other than the traditional resume, application, and cover letter during the applicant screening process.,

This qualitative, multi-case study included participants that were members of the Wabash Valley College Advisory Council, representing the service sector and the

manufacturing sector. These participants had experience using an ePortfolio in the hiring process and had the authority to make hiring decisions.

Participants stated electronic portfolios containing the right information saved them time and money when seeking to hire skilled employees. The findings also showed electronic portfolios provided greater depth of information, more accurate information, connections amongst the information presented, and more detailed information. This study presented templates consisting of pertinent skills hiring professionals thought necessary in the assessment of an applicant in the manufacturing and service sector. The templates highlighted the interworking of necessary soft skills (abilities of an applicant that are supported by indirect proof or unspecified artifacts) and tangible skills (abilities of an applicant requiring the inclusion of specific artifacts showing direct proof of a skill) participants found most necessary in the evaluation of skilled employees.

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CHAPTER 1

INTRODUCTION

Employers in the United States are innovative, productive, and efficient, and this trend will continue if these employers are able to find the skilled labor they require. This study sought to determine if manufacturing and service sector employers found value in the use of an electronic portfolio in the hiring process and developed an electronic portfolio template to be used in career and technical education. Carnevale and Fry (2001) noted that the baby boomer generation of skilled workers will be retired within the next 15 to 20 years, creating a projected need for 10 million new skilled workers by 2020 (p. 9). A 2001 study of workforce issues in manufacturing conducted by the National Association of Manufacturers revealed that more than 80% of the surveyed manufacturers reported a moderate to serious shortage of qualified job applicants even though manufacturing was suffering serious layoffs (Skills Gap, 2001). Employers are not seeing a lack of applicants for positions; instead, they are facing a shortfall of highly qualified employees with specific educational backgrounds and skills (Voke, 2003). This, coupled with an unemployment rate that has hovered around 5% for the last few years, has made it difficult for employers to find qualified workers (U. S. Department of Labor, 2005, p. 1). Michael Barrier (1999) stated that further complicating the problem for employers are “stringent federal state and local laws aimed at preventing discrimination in hiring. These laws impose severe penalties on employers who so much as ask the wrong questions in job interviews” (p. 1). So, how do employers validate an applicant’s skills prior to the interview?

Employers Calling for Accountability

These employers are one of the stakeholders of educational institutions that are calling for greater accountability of the money (tax dollars) being spent on education. Employers want critical thinking, teamwork, self-regulatory skills, adaptability, and flexibility, and they want meaningful evidence of these capacities in potential employees (Borthwick, 1995). It is no wonder that employers want to see years of experience on a person's resume when making hiring decisions. Many of these skills can be readily validated by a past employer, but all that changes as labor markets tighten and employers are interviewing more and more candidates fresh out of college armed with a shiny, first-time resume, a transcript, and a smile. Thus, a direct assessment of complex performances is providing the vision that is behind many of the efforts to alter assessment from its current form (Linn, Baker, & Dunbar, 1990). This has created a movement in the classroom and the hiring process toward more open-ended problems, hands-on exercises, and simulations of real-world problems. This has led to further assessment measures that are frequently referred to as "authentic assessments" since they critique the performance of tasks that are of value in their own right (Archibald & Newman, 1988; Wiggins, 1990). Students are using these classroom experiences as proof that they have the skills to do the tasks at hand in skilled-labor positions within the workforce. Students, in turn, are seeing value in using these educational assessments to prove their skills literacy.

Authentic Assessment

The call for a more authentic form of assessment may seem new to many, but it has been a common topic of conversation for many measurement specialists for quite

some time. Lindquist (1951) noted, “the most important consideration is that the test questions require the examinee to do the same things, however complex, that he is required to do in the criterion situations” (p. 154). Alternative assessments will continue to play larger roles related to the diverse workforce needs in our society. Simple written performance assessments alone do not relate well to the multiple sets of skills required in work settings today (Border, 1998). Workers today are required to be a part of functional work areas and teams with a variety of skills and abilities to complete required objectives. This is in contrast to the work processes in the past when employees followed a structured set of detailed work orders from supervisors. This requires the ability to design solutions around required outcomes as those outcomes fluctuate. Authentic assessment within education seeks to meet these workforce needs by assessing schoolwork the way knowledge and competencies are judged in the workplace (Mann, 1991). Therefore,

it should always be the fundamental goal of the achievement test constructor to make the elements of the test series as nearly equivalent to, or as much like, the elements of the criterion series as the consequences of efficiency, comparability, economy and expediency will permit. (Lindquist, 1951, p. 152)

The challenge lies in documenting these skills inside and outside the classroom as students accomplish complex and significant tasks using prior knowledge and solve real-world problems while reflecting on the learning process (Mahlke, 1993). Traditionally, it has been the cover letter resume and application that students used to convey the knowledge, skills, and abilities they have acquired through education.

Applicant Screening Tools

Resumes have seemingly been a job screening tool forever, but as recently as the 1960’s, resumes were primarily used by executives for initial screening of applicants

(Cooper, 2002). Detailed applications took the place of the resume during this time unless the applicant was seeking a high-level management job. According to Cooper (2002), five-page resumes were the norm at this time because very few were reviewed at one time. It was the mid 1970's that saw the proliferation of the resume as a job search tool espousing the abilities of applicants for positions (Cooper, 2002). This led to a tarnished reputation for resumes as they began to be seen as exaggerated or misleading. According to Cooper (2002), the resume made its comeback during the downsizing of larger corporations. This led to a flooding of human resource offices with the resumes of job seekers. Since that time the resume has become a screening tool for virtually all jobs, and therefore offers very little differentiation of candidates. In recent years, with increased pressure on student learning, employers have begun to see paper portfolios and electronic portfolios used as a tool by students prospecting for employment.

Portfolios

A portfolio, on the other hand, can be many different things to many different people. The term portfolio has been used for many years by the securities industry and by teachers and artists showcasing their works, but it ultimately is a “tool that can be used to house a variety of authentic assessments” (Williams, Davis, Metcalf, & Covington, 2003, p. 3). Traditionally, these portfolios were composed of paper compiled in large binders that could be used to evidence accomplishments. A professional ePortfolio is an “organized collection of complex, performance based evidence that indicates one's growth, goals, and current knowledge and skills needed to be competent in a role or area of expertise” (Campbell et al., p. 151). Taking this a step further, Seldin and Higgerson (2002) said “the advantage of the portfolio is that it moves beyond performance

evaluation to allow for a contextual and comprehensive approach to professional development” (p. 53). You might find terms like teaching portfolio, career portfolio, employability skills portfolio, administrative portfolio, career passport, and career plan used to mean similar or different things (Blincoe, Corbett, & Stewart, 1996; Seldin & Higgerson, 2002). Within the educational community, portfolios offer a source of evidence regarding the demonstration of learning over time (Herman & Morrell, 1999). With the influx of job applicants for each available position, this evidence is needed now more than ever. This especially is true on a local level; William Flynn (2004) discussed the perception of local employers as the “true customers of colleges” (p. 8), and viewed the graduates from those colleges as the principle product produced by the college. These employers are ever mindful of the need that graduates be able to evidence their abilities in a way that is much more appropriate than current measures allow.

Electronic Portfolios

As many institutions are using an electronic form of the traditional portfolio (ePortfolio) for assessment purposes, students are also using these ePortfolios as a career search tool. With increased pressure for better understanding of student learning and external pressure to prove it, ePortfolios enable learning for the creator and the user and demonstrate learning for multiple audiences (Cambridge, Kahn, Tompkins, & Yancey, 2001). Electronic portfolios offer rich possibilities for learning and assessment (Lankes, 1998). In short, selected student outcomes within an ePortfolio quickly authenticate necessary skills by representing a range of work over time. Effectively communicating that a student has gained the skills, knowledge, and abilities necessary within a field of study is the challenge in developing an ePortfolio. However, “technology allows for new

forms of expression. (User-generated content, media subject matter created by end users is widespread on the internet.) The web allows individuals to share creative content in ways that were not possible in the past” (Hackman & Johnson, 1991, p. 161). Our ability to convey the learning of students through a means of communication to all stakeholders is paramount in the educational process (Choban et al., 2004, p. 8).

Thorough ePortfolios provide a clear picture of the student and the skills competency of the individual as a broad cumulative assessment of the student’s achievements related to specific field standards (Border, 1998). Accordingly, ePortfolios are used to assimilate a “meaningful collection of a student’s performance” in conjunction with their work (Mueller, 2003, p. 2). These ePortfolios are an obvious example of an authentic assessment method that provides multiple, tangible forms of evidence of student accomplishment in a format transferable to the job search (Anderson-Lewis & Cooley, 1995). It provides evaluators with evidence upon which to make judgments about the applicant’s effectiveness (Seldin & Higgerson, 2002).

Electronic portfolios “allow students to showcase their abilities in a more dynamic way....through text, graphics, and video....than a GPA or transcript ever could. And because they are digital, it is easier to share, review and provide feedback” (Murphy, 2003, p. 1). But, there are many differing purposes for developing electronic portfolios beyond its dynamic capabilities and portability (Wolf, Lichtenstein, Bartlett, & Hartman, 1996). They are used as an assessment tool, documentation of student learning, and employment or showcases of completed works. For that reason, students have realized that the ePortfolio provides a crossover tool for presenting evidence not only in educational assessment, but also to those willing to hire individuals based on proven

ability. It was the challenge of this study to determine if ePortfolios are of value to potential employers in the assessment of an applicant's skill level.

Statement of the Problem

Little is known regarding the capacity of ePortfolio assessments to support judgments that are valid for large-scale [assessment] purposes" (Novak, Herman, & Gearhart, 1996). Most of the recent studies have concentrated on education students and educators. However, there is a lack of research that attempts to discover if employers outside the field of education find value in using tools other than the traditional resume, application, and cover letter during the traditional applicant screening process. This requires exploring the experiences and perceptions of manufacturing and service sector employers as they screen applicants based on information contained in resumes, cover letters, applications, paper portfolios, and electronic portfolios in an effort to assess the importance of these tools to outside stakeholders of the educational process is imperative. This study seeks to fill this void.

Purpose Statement

There were two purposes of this multiple case study: (a) determine if manufacturing and services sector employers find value in the use of an ePortfolio in the hiring process; and (b) develop a suggested template for an ePortfolio format to be used within career and technical education.

Grand Tour Question

In what ways do interviewers from the manufacturing and service sector use an ePortfolio in the evaluation of candidates for employment, and do those evaluations lend

themselves to the development of a template for ePortfolios in career and technical education?

Research Questions

1. Are there advantages of an ePortfolio over that of traditional pre-employment screening processes?
2. Does the ePortfolio showcase the skills that a candidate possesses in comparison to the skills required on the job to provide authentication of these necessary skills?
3. Are ePortfolios of value to manufacturing and service sector employers in the assessment of an applicant's skill level during the hiring process?
4. Are there advantages of an ePortfolio over that of a text-based portfolio?
5. What information do employers of career and technical students find useful and expect in an ePortfolio?
6. Can a template be developed that will be perceived to provide authentication of workplace skills useful to hiring officials in various technical areas?

Participants

Wabash Valley College

Wabash Valley College was founded in 1960 by the Community Unit School District #348 in Mt. Carmel, Illinois. In July, 1969, Wabash Valley College joined Olney Central College in Olney, Illinois to form the Illinois Eastern Community Colleges District (IECC). Illinois Eastern Community Colleges District was located in a 3,000 square-mile area of rural southeastern Illinois on the Illinois-Indiana border. Illinois Eastern Community Colleges was one of two multi-college districts located in Illinois.

The District grew to also include Frontier Community College in Fairfield, Illinois and Lincoln Trail College in Robinson, Illinois.

Supported by local and state revenue, Illinois Eastern Community Colleges was one of 39 community college districts in the State of Illinois recognized by the Illinois Community College Board. The Illinois Eastern Community Colleges District was accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, and approved by the Illinois State Board of Higher Education, State Board of Teacher Certification, United States Department of Justice for Training Foreign Students, State Approving Agency for Veterans' Education, Illinois Department of Professional Regulation, National League for Nursing, National Radiologic Technology Board, and State Cosmetology Board.

The mission of Illinois Eastern Community Colleges District 529 was to provide excellence in teaching, learning, public service, and economic development. Through its four colleges, the District offered a comprehensive curriculum of transfer, occupational, adult continuing education, and general educational development (GED) programs. Students could enroll in a two-year degree program, certificate programs of one year or less, or in selected courses that fulfilled their personal interest or career needs. The two-year programs prepared students to transfer to a four-year university or for immediate entry into an occupational field.

Illinois Eastern Community Colleges provided an important leadership role in the educational and cultural life of the region with a student headcount of nearly 31,000. It was the only post-secondary institution in its district. As a result, the four colleges served as vital community centers for education and cultural activities, attracting not only recent

high school graduates but also many nontraditional students who were returning to resume interrupted educational careers, to upgrade their skills, or to seek personal enrichment experiences.

Advisory Councils

The Wabash Valley College Advisory Council consisted of a group of 120 individuals that represented 82 companies throughout the college district. Those individuals held a wide range of positions (from administrative to laborer), giving the council balance and a blended perspective of skills needed for employees within the fields represented. Advisory Council members regularly hire qualified employees in skilled positions. Their knowledge of the industry and of the necessary skills that an applicant within that specific industry needs were essential in the development of curriculum for the career and technical education programs at Wabash Valley College. There were ten career and technical education programs at Wabash Valley College, each had a twelve member advisory council that met twice a year. The ten career and technical education programs were:

- Agricultural Technology,
- Diesel Equipment Technology,
- Energy Technology,
- Early Childhood Education,
- Gunsmithing,
- Manufacturing Technologies,
- Marketing Business Management,
- Nursing,

- Radio-TV Broadcasting, and
- Social Services Specialist.

For the purposes of this study, the Manufacturing Technologies program and the Nursing program were selected to determine if employers in these two distinctly different sectors of the economy found value in the use of the ePortfolio in the hiring process and to see if a suggested template for an ePortfolio could be developed for these two Wabash Valley College career and technical education programs.

The Manufacturing Technologies program is comprised of curriculum from three other programs on campus that include Electronics, Machine Shop Technology, and Industrial Studies programs. The Manufacturing Technologies program trains students to work in the manufacturing sector of the economy. These students acquired very specific, tangible skills that employers could use to facilitate the production of goods in a myriad of industries. The Advisory Council representatives for these three programs served jointly as the representatives of the Manufacturing Technologies program. The 36 members of the Manufacturing Advisory Council formed the group from which a sample was drawn for use in the discipline of Manufacturing Technologies.

The Nursing Program was chosen for this study to determine how employers within the service sector of the economy used the ePortfolio in the hiring process and to see if a suggested template for an ePortfolio could be developed for a service sector program. While students within the Nursing Program acquired very tangible skills that employers sought to authenticate for various hospitals units, nursing homes, home health agencies, and physician offices, those students ultimately were hired to work within a service sector business. The structure of the Nursing Program was similar to that of the

Manufacturing Program. It had a 12 member panel that met at least twice a year to review practices, curriculum and clinical procedures for the students within the Nursing Program. These 12 members formed the group from which a sample was drawn for use in that discipline.

Definition of Terms

The definition of key terms as utilized in this study are as follows:

Advisory Council—as used in this study, is a group of individuals representing corporations whose primary business functions center around the disciplines of Manufacturing, Diesel Equipment, Business Management, Early Childhood, Agriculture Production, Agriculture Business, Radio/TV Production, Social Services, Nursing, and Information Processing.

Artifact—“tangible evidence of knowledge that is gained, skills that are mastered, values that are clarified, or dispositions and attitudes that are characteristic of you” (Campbell, Cignetti, Melenzyer, Nettles, & Wyman, 2000, p. 5).

Authentic Assessment—is a method to measure higher order knowledge and skills in a setting that approximates the real world (Brandt, 1992).

Authentic Learning—the cognitive demands of the learner are consistent with the cognitive demands in the environment for which they are being prepared (Honebein, Duffy & Fishman, 1993).

Career and Technical Education— “refers to undergraduate instruction at the certificate, associate’s degree, and bachelor’s degree levels designed to impart relevant knowledge and skills that relate to the requirements of specific occupations or careers” (U. S. Department of Education, 2008, p. B-5).

ePortfolio—an electronic portfolio uses electronic technologies as the container (Internet, CD, DVD), allowing students/teachers to collect and organize artifacts in many media types (audio, video, graphics, text); and uses hypertext links to organize the material, connecting evidence to appropriate outcomes, goals, or standards (Barrett, 2006).

Model ePortfolio—a template or preset design that can be used as a guide for the construction of an ePortfolio in a particular program or area.

Portfolio—is a purposeful collection of student work that exhibits the student's efforts, progress, and achievements in one or more areas (Paulson, Paulson, & Meyer, 1991).

Pre-employment Screening—any analysis of an applicant's skills prior to any form of work for the hiring entity.

Skill Literacy—the ability to identify one's own skills and describe them using appropriate language and examples (Australian Department of Education, 2006).

Soft Skills—the abilities of an applicant that are supported by indirect proof or unspecified artifacts.

Tangible Skills—the abilities of an applicant that require the inclusion of specific artifacts showing direct proof of a skill.

Traditional Pre-employment Screening Process—includes an application, cover letter, resume/vitae, and letters of reference.

Assumptions of the Study

Knowledge will be the driving force that shapes the labor markets within the 21st Century (Horrigan, 2002). The importance of educating, training, and assessing skills is

significant to organizations as they seek to replace an aging workforce and seek to remain competitive as the skills for virtually all occupations change (Hallman, 2002). In fact, the U.S. Department of Education (2000) estimates that 60% of all new jobs in the 21st Century will require skills that are possessed by only 20% of the current workforce (p. 13). The demand for a skilled workforce was one assumption of this study. Another assumption was that employers have determined what skills are required for competency within their organization.

It was assumed that this competition for employees with applicable skills will require employers to increase their screening procedures during the pre-employment process. While a cover letter, traditional résumé, application, letters of reference and even a paper portfolio have been used for years in the application process by candidates seeking employment, employers are going to greater lengths to determine an applicant's abilities in the pre-employment process. "For far too long, the most important factor in deciding who to hire was the interview" (Sirbasku, 2002). Résumés and letters of reference are easily sent with any application, but bulky paper portfolios are not easily transported and in reality must be retained by the applicant for future use (George Brown College, 2004).

The concept of paper and electronic portfolios within education is gaining in popularity and students possessing ePortfolios are in greater number. This can be seen in the number of colleges and universities that are moving toward the use of ePortfolios as an assessment tool. According to Casey Green's 2004 Campus Computing Survey, the number of institutions making use of *ePortfolios* doubled from the survey report findings in 2003 to include almost one-third of U.S. institutions (Green, 2004). In addition,

textbook vendors and publishers are taking a much more active role in the development of ePortfolios (Batson, 2002). With the number of institutions nationwide moving in the direction of ePortfolios and the commercial sector responding to this movement with the rollout of proprietary software to accommodate the growing demand, it was assumed that the ePortfolio is here to stay.

It was also assumed that the participants through the Wabash Valley College Advisory Council were willing to participate and open to discussions regarding strategic application of their hiring processes within their respective organizations. Members of the Advisory Council were selected based on their ability to influence the hiring practices at their place of employment and their experience in using ePortfolios.

Target Audiences

There are four audiences for this study: employers, career and technical education faculty, administrators, and students. Employers can benefit by learning about the experience of those using an ePortfolio in the hiring process. Career and technical education faculty can gain a greater feel for the specific skills graduates of their programs will be required to authenticate in obtaining employment upon graduation.

Administrators may benefit from this study as they are able to begin to analyze the curriculum within various programs of study to determine if it is representative of the skills employers are seeking in graduates of the representative programs. Students will benefit from the knowledge pertaining to the specific skills required for employment within a field of study.

Delimitations and Limitations

Delimitations provide the boundaries for a study and help to narrow the scope (Creswell, 1998). This study was narrowed to two advisory councils of six employers representing manufacturing institutions in the manufacturing sector and healthcare institutions in the service sector.

The major focus of this study was on the applicability of the ePortfolio as a tool in the hiring process. The factors that determine employability could appear in the data although many of them fall outside the realm of this study. The focus of this study was to determine in what ways do interviewers from the manufacturing and service sector use an ePortfolio in the evaluation of candidates for employment, and do those evaluations lend themselves to the development of a template for ePortfolios in career and technical education.

A limitation of the study is the reliance on interviews and focus group data (Creswell, 1998). This data will be collected at a time that is ultimately distant from the hiring process at any of the institutions in the study. Employers will be allowed to view actual student ePortfolios at the time of the interviews, but there will be no hiring decisions made directly relating to the data that is being presented to the employer. This will allow for the collections of perceptions as they relate to the usefulness of an ePortfolio, but will say nothing about the usefulness of the ePortfolio as the employer seeks to hire specific candidates for employment.

Significance of the Study

Understanding if industrial and service sector employers prefer an ePortfolio to other screening tools and how they apply the components of an ePortfolio in the

employment process will help to answer questions regarding the relevance of the ePortfolio outside the confines of education. At the very least, it will aid in the advancement of programmatic guidelines for ePortfolios in career and technical education programs. These guidelines will provide a template by which individuals can tailor their ePortfolios for specific industries. By developing such guidelines based on the processes by which employers seek to authenticate the talent of skilled employees, the curriculum of all career and technical education programs could be affected.

CHAPTER 2

REVIEW OF LITERATURE

Introduction

A review of the related literature was performed to establish and refine the research questions that are most significant in this study. Robert Yin stated that the purpose of a literature review is “to develop sharper and more insightful questions about the topic” (2003, p. 9). Due to the limited research on electronic portfolios as a useful tool in the authentication of workplace skills, the discussion of relevant literature includes general portfolio concepts as appropriate. This literature review examines the use of the electronic portfolio in the hiring process and the implementation of the electronic portfolio as an assessment measure within higher education. This literature review, discussions with noted experts in the field of electronic portfolios, and the synthesis of publications on the topic of electronic portfolios and assessment of learning provided the framework for a research methodology.

This chapter begins with a discussion of the selection of skilled labor and continues with a look at the traditional pre-employment application process that includes detailed review of paper and electronic portfolios. The core components of the review of electronic portfolios includes student learning ePortfolios and professional ePortfolios. The review ends with the purposes for using ePortfolios. The summary of the literature review indicates that further research is needed to determine the benefits of the ePortfolio to manufacturing and service sector employers.

Selection of Skilled Labor

Labor markets in the United States are experiencing an ever greater shift toward skilled labor. Unskilled jobs are moving overseas at a steadily increasing rate, and this is creating a greater burden on human resource departments as the number of resumes and applications they receive for each job opening increases. Many applicants are ill-qualified or poorly matched for the positions they are applying to fill. Accordingly, human resource management (HRM) is working to integrate human resource information systems (HRIS) into an integrated model that functions to strategically align the skills and abilities of applicants with the organization (Kavanagh & Thite, 2009). It is increasingly obvious that human resource departments need to find the most qualified employees as quickly as possible without squandering time and money in the process. Employers in the United States have recognized the costs associated with hiring new employees and are looking to make better decisions. According to a 2002 staffing metrics report by The Society for Human Resource Management (SHRM), the average cost per hire of non-exempt employees (employees paid an hourly rate and not contractual or salaried amount) was \$2,546. This average included the costs projected by large employers of \$2,177, medium size employers of \$2,434, and small employers of \$3,640 (p. 18). This is the cost of just hiring an individual and does not reflect the costs of training and orienting a new employee. Many companies have decreased their costs by changing the process whereby they gauge an applicant's ability to meet the stated qualifications of a job by turning to Web-based assessments and prescreening tools to automate the tasks of gathering information and assessing candidate qualifications (Kavanagh & Thite, 2009). It is important to understand how the fundamental

procedures involved in screening job applicants is changing in relation to the demand for skilled labor in industry today.

Good employees are a fundamental asset for all companies. These employees are ultimately the individuals that lead to the success and profits of the business. In order for a company to build a team of effective and efficient employees, it must start by making good hiring decisions. Those in charge of human resources who are charged with decisions that involve the selection of applicants must eliminate and reject the applicants who are unqualified for the job and evaluate the qualifications and characteristics of qualified applicants to identify the person to be hired (Eure, Halatin, & Ross, 1985). According to a study done by Eure, Halatin, and Ross (1985) at Southwest Texas State University, “employee selection is the most important decision because it determines who will be responsible for particular tasks and jobs during future periods of time” (p. 1). Accordingly, Witt (1996) noted in his study on productivity that “there are many ways to improve productivity, but none is more powerful than making the right hiring decisions” (p. 22). The purpose of the selection process is then to identify and ultimately employ the best qualified individuals for specific positions. Most organizations realize that their distinctive advantage lies in the ability of their workforce and is thus grounded in their selection processes, yet they do not take the importance seriously. Drucker (2008) stated, “There are no more important decisions within an organization than people decisions” (p. 308).

Organizations use a variety of selection practices to screen applicants for the purposes of determining which applicants have met the qualifications set forth by the company. There are many criteria that go into the considerations of employees during

the screening process including: job descriptions, legal considerations, organizational hierarchy, size of applicant pool, type of organization . . . etc. While these variables may change from employer to employer, it is the tools that are used in the selection process that are fairly uniform. A 2002 study by the Electronic Recruiting Exchange surveyed 573 members regarding screening strategies. Interestingly, nearly all organizations used resumes and applications as part of the selection process. For many companies, these were the only two written instruments used in the screening process. The report also noted that less than 30% of organizations reported use of any testing or assessment method in the selection process (Bernthal & Wellins, 2001, p. 4).

What the study found as a predictor of the effectiveness of a selection system was the use of training and experience evaluations. This tool is used as a screening device to determine which applicants have a demonstrated ability to perform the tasks associated with the job. The opportunity to assess job-relevant skills, abilities, and motivation from the past before the interview process provides a clear indication of the ability to perform the same functions in the future (Bernthal & Wellins, 2001).

The need for improved screening techniques becomes apparent as one looks at the pace of change. The job market is changing:

According to the Bureau of Labor Statistics, the growth rate of college level jobs between 1996 and 2006 is expected to be lower than that of the previous 10-year period. This reduced employment growth is expected to provide 65,000 fewer college-level jobs, leaving 18 percent more new college graduate job seekers than there are openings for college level jobs. (Mittelhauser, 1998, p. 5)

Additionally, non-traditional, or contingent, workers are representing an ever greater percentage of the labor force. These are positions that are recognized to be temporary and not full-time employment opportunities. Companies are turning to contractual,

temporary, independent, and freelance workers to provide value-based services as work assignments become project based. According to a nationwide study, alternative workers now make up 28% of the U.S. labor force, a 25% increase from 1998 (Kelly, 2003). A Spherion Corporation press release (2003) expects the percentage of contingent workers to be greater than 50% of the U.S. labor force because of the emergence and anticipated growth of skills-based careers. It is the need to demonstrate one's skills in a marketplace centered on skills-based careers that will require applicants to find better ways in which to differentiate themselves from others within the applicant pool (Roulin & Bangerter, 2010).

Traditional Pre-employment Application Process

The resume has long been a staple of the application process for obtaining a job in the United States. "The resume is a tool geared to get an individual an interview for a position by presenting a concise picture of career goals, education, and experience" (Green & Martel, 2004). The resume in the United States has at least a one hundred year history. Popken (1999) traced its origins from a sub-section of a letter of employment application in the first decades of the twentieth century to the adoption of the term 'resume' in the 1950's. This paper snapshot of an individual's qualifications for a particular position provides a quick reference for those in hiring positions to make decisions about a candidate's ability to do the job in question. Employers use resumes as a quick reference tool. Green (2004) noted that the average employer spends only 30 seconds looking at each resume. Employers are therefore looking for very specific items on a resume to determine whether or not the candidate should receive further

consideration. Exactly what information an employer is seeking to find may vary from position to position, but

as the labor market became less stable over the last 30 years, the functional resume replaced the traditional chronological format. People who changed jobs frequently found that listing different experiences by groups of skills was superior to listing experiences chronologically. (Kimeldorf, 1999, p. 2)

With the proliferation of temporary, freelance, and contractual work being offered by employers, it makes sense for a candidate to focus on the skills they possess.

Additionally, Kimeldorf (1999) stated, “Resumes alone are no longer adequate to describe a person’s experiences in this fast-pace, constantly changing, work environment” (p. 2). Eure and colleagues (1985) states,

It is important to recognize and realize that it is the applicant who provides most of the information used in a majority of the selection decisions. While employers may differ in the means and techniques of assessing the qualifications of an applicant, there are three popular instruments or techniques that are used for obtaining information about job applicants. The two written instruments are the application form and the resume with cover letter and the non-written technique is the interview. (p. 2)

The resume has also come under considerable scrutiny as the public at large has perceived it to be a marketing tool for the job hunter and not a quick reference guide for the employer. Additionally, the application process is limited by federal and state laws that seek to protect the applicant on the basis of their ‘immutable characteristics.’

Meanwhile human resource professionals are left to utilize the cover letter as a tool to try to marry the job opening to the skills that the applicant is seeking to showcase on a resume (Green, 2004, p. 109). But, it is the resume that gets an applicant an interview in the traditional screening process (Green, 2004, p. 65). That being the case, there are a large number of books and online services seeking to help individuals bolster their resumes through catch phrases and ‘power wording.’ While many individuals could gain

a great deal of beneficial information from these services, these techniques can easily be taken too far and be used to create resumes that are disingenuous or worse yet, fraudulent (Acxiom Corporation, 2011). It then becomes even more difficult for an employer to determine whether an applicant has the necessary skills to be considered. For that reason, many employers are seeking alternative means from which to adequately gauge the qualifications of an applicant. As an example, the A. L. Barnes Company (1988) even pioneered a certified resume recognizing the difficulty human resource professionals were having with the creative liberty applicants were using. This was audited by a company for authenticity before it was evaluated by human resource personnel.

According to Good and Fitzpatrick (1993), there are basically three structural formats for resumes based on the candidate presenting the information. The three formats are the chronological, the functional, and the combination resume (p. 51). Greene (2004) noted that any of the formats are acceptable, but the most common formats are the chronological and functional resume with the chronological being the most widely used (p. 76).

The chronological resume is the most popular format for a resume because it is the one most preferred by employers (Good & Fitzpatrick, 1993, p. 52). The chronological resume is generally used to highlight sequences of events in reverse chronological order and is therefore easy for employers to trace the history of an applicant and to make their own decisions about the attributes of an applicant. The chronological order is broken down into categories that generally include education, experience, interests, and volunteer work (Good & Fitzpatrick, 1993, p. 52). This type of resume is generally used by individuals that have had a fairly consistent progression

toward their career objective. It is considered critical in the chronological resume to not have any gaps in the employment history (Good & Fitzpatrick, 1993, p. 52). The format allows the applicant to show growth over time in a variety of positions and fields that have culminated in an ability to be effective in the job being advertised.

Good (1993) described the functional resume as being used to place emphasis on the skills and not the specific dates of attainment for an applicant. A skills section referring to an applicant's competencies or abilities is generally the first section of the functional resume. This section is generally composed of three or four broad categories of skills that directly relate to the objective statement in the job position that was posted. This format is frequently used by individuals that have held a wide variety of unrelated jobs and have gaps in their employment history.

Paper Portfolios

At the same time that many employers are finding it increasingly difficult to believe the self-advertising statements found in resumes, many job applicants are seeking to validate their skills through other means (Kimeldorf, 1997). Paper portfolios have customarily been a compilation of artifacts held in a three-ring binder or other form of cache. Traditionally, the paper portfolio has been used by artists, writers, and designers in pursuit of work that required them to prove their ability at the time of application (Kimeldorf, 1997).

The brave new world of work is evolving toward a state of constant motion where workers are continually moving on to various projects, teams or companies. In the most basic of terms, it means you are no longer your job title, but, rather, a collection of talents or skills moving from one site to another. The portfolio becomes the perfect tool for highlighting these portable skills. (Kimeldorf, 1997, p. 33)

Human resource departments are referring to the authentication of these skills as ‘skills literacy;’ and the Australian Department of Education (2006) defined ‘skills literacy’ as “the ability to identify one’s own skills and describe them using appropriate language and examples” (p. 83). The portfolio is one of the ways in which candidates are able to provide proof of the skills and abilities that they have alluded to on a resume, and in doing so, differentiate themselves from the rest of the applicant pool. Seldin and Higgerson (2002) state that “the portfolio is a highly personalized product, and no two are exactly alike” (p. 29). Martin Kimeldorf (1997) stated that “while there is still much value in using traditional job search documents and techniques, effectiveness will increase by supplementing the tried-and-true with new or hybrid approaches” (p. 2). A portfolio is just such a tool that can provide convincing evidence of a candidate’s skills literacy to those that are in a position to hire or promote. Martin Kimeldorf (1997) explained how portfolios impact the hiring process:

When a job seeker offers to share a portfolio during the hiring process, he or she makes the difficult decision easier. That's because a portfolio contains evidence of one's work-abilities (sample letters, memos, news clips, reports, charts, plan sheets, budget print outs, photos, etc). The portfolio provides an alternative to checking references. I believe that the job seekers who supply additional credible information about past performance during the interview will enjoy a more favorable response than those who rely solely on words or resumes. (p. 1)

The paper portfolio, however, is not without its drawbacks in this digital age. The paper portfolio is generally considered to be bulky and impractical in the hiring process. Paper portfolios are also something that can never be disseminated (George Brown College, 2004). Most individuals have few if any copies of the original and can therefore only use their paper portfolio during the face-to-face interview stage of the hiring

process. It is of no value to them during the application process when employers are seeking an initial validation of an applicant's skills.

Electronic Portfolios

An ePortfolio can be many different things to many different people. The term is often used in the securities industry and by artists showcasing their works. It ultimately denotes a collection of artifacts that hold value to the owner. A review of available literature suggests that there are a myriad of types of ePortfolios, but the most widely applied student ePortfolios include institutional ePortfolios, career ePortfolios, and student learning ePortfolios (DiBiase 2002; Greenberg, 2004; e-portfolio Consortium, 2003). It is the widening use of these three types of ePortfolios that is creating a rippling effect in the job search process.

A professional ePortfolio is an “organized collection of complex, performance based evidence that indicates one's growth, goals, and current knowledge and skills needed to be competent in a role or area of expertise” (Campbell et al., p. 151). Taking this a step further, Seldin and Higgerson (2002) said “the advantage of the portfolio is that it moves beyond performance evaluation to allow for a contextual and comprehensive approach to professional development” (p. 53). You might find terms like teaching portfolio, career portfolio, employability skills portfolio, administrative portfolio, career passport, and career plan used to mean similar or different things (Blincoe, Corbett, & Stewart, 1996; Seldin & Higgerson, 2002). A study conducted for the Texas Education Agency found that a portfolio can include almost anything since “the student should have some choice in the selection of the items to be included” (Felstehausen, Lawver, & Couch, 1995 p. 31). More specifically, portfolios are

collections of work compiled by students over time that provide evidence of their attainment of skills. Careful selection of documents can demonstrate general education skills, general employability skills, and skills specifically related to a chosen occupational area. (Felstehausen et al., 1995, p.31).

Barrett (2000) and Corbett-Perez and Dorman (1999) argued that the electronic portfolio (ePortfolio) has advantages over paper-based portfolios. The electronic portfolio is more than an electronic version of the paper portfolio. It is an archive of the work an individual seeks to exhibit. Technology allows for the easy creation and management of skills literacy information, and a vast amount of information can be stored on a network, disks, or a flash drive. An ePortfolio takes up less physical space than the files, folders and boxes that are needed for paper based portfolios. Electronic portfolios are also easier to update, maintain, and disseminate. Additionally, ePortfolios are more readily available, allowing candidates the ability to merely reference their ePortfolio and its website within their cover letter, resume, or employment application when applying for a job. Candidates also have the ability to attach copies of their electronic portfolio to their resume or application letter in the form of mini discs or CD's that the employer can access at their convenience. The electronic portfolio is also a very flexible platform from which to present information on skills literacy. The information within an ePortfolio can be quickly modified to address the selection criteria for different job applications once an individual has compiled an ePortfolio (Mu, Wormer, Foizey, Barkon, & Vehec, 2010).

Electronic portfolios also offer rich possibilities for learning and assessment (Lankes, 1998). With increased pressure for better understanding of student learning and external pressure to prove it, ePortfolios enable learning for the creator and the user and

demonstrate learning for multiple audiences (Cambridge et al., 2001). In short, selected student outcomes within an ePortfolio quickly authenticate necessary skills by representing a range of work over a specified period of time. Effectively communicating that an individual has gained the skills, knowledge, and abilities necessary within a field of study is the challenge in developing an ePortfolio and this communication is critical. “Technology allows for new forms of expression. User generated content, media subject matter created by end users is widespread and allows individuals to post and share creative content in ways that were not possible in the past” (Hackman & Johnson, 1991, p. 161). It is not that the electronic portfolio should have been in development before now, for it is a component of the movement of technology within society to make information more accessible through the use of technology. Choban et al. (2004) noted that our ability to convey the learning of students to all stakeholders is paramount in the educational process (p. 6).

Within the educational community, ePortfolios offer a source of evidence regarding the demonstration of learning over time (Herman & Morrell, 1999). This evidence is needed now more than ever before, according to Flynn (2004), as he discussed the perception of local employers as “customers of colleges”, and viewed the graduates from those colleges as the principal product produced by the college (p. 8). Fitch (2004) stated that “webfolios offer students a means not only of developing their professional personas, but also of forging professional connections, gaining professional opportunities, and perhaps even ultimately securing the positions they desire” (p. 3). Additionally, ePortfolios can be used for many different purposes and audiences.

Personal portfolios, designed for self-reflection, can be used to journal experiences, organize materials from classes and activities, and help students

recognize skills and make decisions. Learning ePortfolios can be used to showcase student learning, provide a framework for assessing academic progress, and demonstrate how skills have developed over time. Professional ePortfolios can be used to help make career decisions, demonstrate that one has met program or certification requirements, present skills and accomplishments for employment, and review professional development for career advancement. Faculty, too, can use ePortfolios to collect and organize student work from classes and course materials they prepare, as well as personal credentials including research data and reports. (Greenberg, 2003, p. 11)

There are what Fitch (2004) considered a “dizzying array” of goals for the use of the ePortfolio within the educational field. She went on to say that,

you will definitely want to consider on which of a variety of goals your department, discipline, or program places the most emphasis, and how many of those goals can be reasonably addressed by webfolios. Often, one process truly can serve a variety of needs--especially since the various goals are so closely related. (Fitch, 2004, p. 1)

The ePortfolio demonstrates a richer picture that supports reflection, helping to understand student learning that documents growth over time (Barrett, 2000). Fitch (2004) noted “the self-reflective pieces students typically generate as part of online portfolios create an ideal opportunity for classroom assessment and research” (p. 3). Individuals are recognizing the value of these tools in their educational process and have quickly broadened the scope of the skills literacy tests to provide them with a tool to be used in the employment application process. It is critical to look at each of these three types of ePortfolios (learning, personal, and professional) as they lead students from the educational objectives of the ePortfolio to free market uses.

Learning ePortfolios

Learning ePortfolios, often referred to as institutional ePortfolios “contain examples of [an] institution’s activities, programs, and initiatives, each expressing an element of reflection and self-assessment. Through its ePortfolios, an institution

documents how it is achieving its stated mission by examples that speak to the interests of various audiences” (Ketcheson 2001, p. 84). Barr and Tagg (1994) in their article titled *From Teaching to Learning-A new Paradigm for Undergraduate Education* note that it is unfortunate that,

we judge our colleges by comparing them to one another. The criteria for quality are defined in terms of inputs and process measures. Factors such as selectivity in student admissions, number of Ph.D.s on the faculty, and research reputation are used to rate colleges and universities. Administrators and boards may look to enrollment and revenue growth and the expansion of courses and programs. (p. 5)

When we move from the instructional paradigm to the learning paradigm we begin to incorporate the perspectives of the assessment movement (Barr & Tagg, 1994).

Developing a learning paradigm shifts the emphasis away from the institution and back to the student.

As we view higher education today, we are seeing a major shift in the role or mission of the community college. Barr and Tagg (1994) go to great lengths to illustrate this point, but it can be summed up in their statement that,

a paradigm shift is taking hold in American higher education. The paradigm that has governed our colleges is this: A college is an institution that exists to provide instruction. Subtly but profoundly we are shifting to a new paradigm: A college is an institution that exists to produce learning and this shift changes everything. (p. 1)

Enrollment growth, high participation rates, revenue growth, curriculum expansion, and acquisition of physical resources are incorrectly seen as indicators of a successful college in the instruction paradigm. Barr and Tagg (1994) further noted that in the learning paradigm colleges that have identified goals for learning and student success outcomes and can document achievement will be the most successful. Rather than focusing on the quality of entering students, these colleges will be concerned about the quality of exiting

students and how much the students have learned. Ultimately, “learning outcomes include whatever students do as a result of a learning experience. Any measurement of students' products from an educational experience is a measure of a learning outcome” (Barr & Tagg, 1994, p. 6). Student-driven ePortfolios may offer this possibility as a vehicle to capture these learning outcomes, and this falls in line with the design and demands of employers.

In their synthesis of “Eportfolio Research: A Slim Collection,” Herman and Winters (1994) noted the following:

Well-designed ePortfolios represent important, contextualized learning that requires complex thinking and expressive skills. Traditional tests have been criticized as being insensitive to local curriculum and instruction, and assessing not only student achievement but aptitude. EPortfolios are being heralded as vehicles that provide a more equitable and sensitive portrait of what students know and are able to do. EPortfolios encourage teachers and schools to focus on important student outcomes, provide parents and the community with credible evidence of student achievement, and inform policy and practice at every level of the educational system. (p. 48)

The use of ePortfolios for assessment is very attractive to adult and career and technical educators because it better authenticates the skills and abilities that the student gained as opposed to the determination of the student's ability to memorize and recall facts (Brown, 1997). This process of assessment allows greater cooperation between programs of study and industry, as industry representatives are able to see first hand the skills, knowledge, and abilities that students within an area of study have mastered. The assessment movement has been described as a movement in two disconnected rounds. Round one was largely predicated on surveys and standardized testing that was already in existence. Round two “saw the development of more authentic kinds of approaches, where the focus is on actual student work” (Kirby, 2005, p. 1).

Institutional decision makers as well as developmental educators, however, have not kept pace with developments in affective assessment. They are frequently unaware of the variety of affective assessment instruments currently available. They have not put much thought into how these instruments might be used in the assessment process. (Saxon, Brown, & Baylan, 2008, p. 1)

What was found was that the evaluation measures for assessing student work have not kept pace with the assessment movement. This movement toward the use of actual student work in outcomes-based assessment requires faculty to construct assignments that essentially require a performance. Performance here is the operative word as we proceed along with the discussion on authenticating skills. Most faculty do not think in this manner regarding the work that they are doing in the classroom. In reality, a speech, a paper, a debate, or a lab project are all performances within those disciplines. Ewell reminded faculty that they must ask themselves, “What elements of an assignment could I construct as a performance” (Kirby, 2005, p. 4)? This promotes feedback that is more concrete in nature and provides information that illuminates questions and relevant issues. It is for that reason that Astin et al. (2004) noted in their work for the American Association of Higher Education that

Assessment recognizes the value of information in the process of improvement. But to be useful, information must be connected to issues or questions that people really care about. This implies assessment approaches that produce evidence that relevant parties will find credible, suggestive, and applicable to decisions that need to be made. It means thinking in advance about how the information will be used, and by whom. The point of assessment is not to gather data and return “results”; it is a process that starts with the questions of decision-makers, that involves them in the gathering and interpreting of data, and that informs and helps guide continuous improvement. (p. 2)

The movement towards ePortfolios in assessment allows the author to evidence work through illustrations of ability, skill, and knowledge, as well as, often harder to assimilate characteristics like creativity, logic, and critical thinking. Seldin and

Higgerson (2002) stated that “a portfolio is the highly personal document of an individual. It reveals beliefs and values, relationship, effort, and intent” (p. 68). Seldin and Higgerson (2002) also noted that “the portfolio model makes space, literally and figuratively, for personal revelation and reflection, areas of achievement, and areas in need of further growth and development” (p. 68). It is therefore necessary for the ePortfolio to reflect both the “breadth of study envisioned by the curriculum and the quality of work that students are expected to produce” (Brothwick, 1995, p. 25). Within the quality of work, the author is also documenting the learning process as changes occur within the ePortfolio. As opposed to test scores or letter grades dictating the context of the knowledge, the substantive descriptions or examples of what one has been experiencing are left as authentic archives through performances for review.

Authentic assessment or what is many times referred to as performance assessment is defined by many components. Wiggins (1990) noted that “Assessment is authentic when we directly examine student performance on worthy intellectual tasks” (p. 1). He went on to say that these assessments must require the students to use acquired knowledge on a full array of tasks and require the compilation of thorough and justifiable answers. Some are saying that the essential nature of career based curriculum calls for authentic assessment. Rogers, Hubbard, Charner, Fraser, and Horne (1996) noted:

The measurement of learning that occurs in settings so unlike the traditional classroom requires assessment practices that are correspondingly different. Many school-to-work programs have drawn up comprehensive sets of competencies, often in consultation with business partners, which students in that program are expected to acquire, at certain minimum levels. Others have established comprehensive standards toward which all the programs within a school or district are expected to strive. Others have experimented with ePortfolio assessment as the most accurate way to document a student’s education. (p. 11)

This fundamental concept of authentic assessment is central to educational theory that calls for students to demonstrate rather than tell about what they know and can do (Cole, Ryan, & Kick, 1995). This creates a stream of progress toward specific course or program outcomes based on performance measures and requires the gathering of information outside of the abilities of testing. Information must be collected from various sources, through multiple methods over a period of time (Shaklee, Barbour, Ambrose, & Hansford, 1997). Ultimately the instructor would dictate input and accountability measures in regards to the standards, criteria and content of the ePortfolio for all of the stakeholders for the institution. An assessment framework is important for a wide range of stakeholders with interests in the performance of a college or student. “All stakeholders have a need and a right to receive and understand effectiveness indicators. Given the range of stakeholders, the institutional performance data must be packaged and presented in a clear, concise, and precise fashion” (Choban et al., 2004, p. 8). The main advisory council members, departmental instructors, employers, and internship coordinators must all recognize the value inherent in the artifacts assimilated in the ePortfolio. Through student assessment came educational accountability to all family, agencies, and the public. This shared responsibility provides students the intrinsic motivation to manage their own learning through self-assessment and experience (Caine & Caine, 1990).

Ultimately, all stakeholders of the student recognize that the organizational culture of higher education is strengthened by adding value to the student. This value is immeasurable for many institutions. An ePortfolio system allows for assessment of student learning and allows them to prove that they were effective in achieving specified

goals (Flynn, 2004; Barrett, 2000). As ePortfolios are implemented into the assessment plans of institutions, they can demonstrate authentic forms of assessment that take into account multiple measures, competencies, learning, and understanding (Barrett, 2000). Eportfolios have been used for years as just a communication tool and as a course level assessment tool, but Williams, Davis, Metcalf & Covington (2003) noted that “an ePortfolio is one tool that can be used to house a variety of authentic assessments” (p. 3). As institutions place ever greater emphasis on assessments that include ePortfolios, the proliferation of their use and adaptation as a career prospecting tool will grow.

Professional ePortfolios

Professional ePortfolios, or Career ePortfolios, are representative artifacts compiled by individuals that represent their best practices for the purpose of fostering self-reflection and peer review. It is this process that completes the assessment loop within the improvement of teaching and ultimately learning (Hutchings, 1998). DiBiase (2002) noted that a study of students at Penn State found “informal written and verbal responses from students indicate that web portfolios provide valued technological skills and a synthesis of their University experiences that can help them achieve career goals” (p. 24). With the individual in control of the ePortfolio compilation, greater intrinsic motivation can be seen in the development of the ePortfolio through reflection and review of material deemed essential by the creator.

As technological advancements in the workplace continue at a rapid-fire pace considerable pressure has been placed on the U.S. educational system to prepare students for increasingly greater skill-based occupations. According to the Community College Research Center, employers reward new hires for having the skills or credentials needed

for the job, underscoring the importance of having the requisite “tools in your toolbox” (Bailey, Kienzl, & Marcotte, 2004, p. 1). The term requisite tools indicates that an ePortfolio is not meant to include anything and everything that the student has produced, instead it is essential that students understand a clearly defined set of criteria that are understood in the compilation process of its development. This requires the student and instructor to be able to identify the scope of learning and set forth the artifacts and their appropriate rationale for inclusion from an industry perspective.

I propose that an electronic ePortfolio without clear links to standards is just a multimedia presentation or a fancy electronic resume or a digital scrapbook. Without standards as the organizing basis for an ePortfolio, the collection becomes just that . . . a collection, haphazard and without structure; the purpose is lost in the noise, glitz and hype. High technology disconnected from a focus on curriculum and industry standards will only exacerbate the lack of meaningful integration of technology. (Barrett, 1998, p. 1)

Student Learning ePortfolios

Student learning ePortfolios are collections of artifacts (examples of student work) that are pulled from assignments that student’s have had within a single course or across curricula and activities that span a student’s entire academic career (DiBiase, 2002, p. 6). Students also use ePortfolios to document attainment of specified academic and non-academic goals outside of the classroom (Linn & Gronlund, 2000).

The ability of the ePortfolio to tie the course or program assessment loop together for the institution is but one of the critical factors in making the ePortfolio a popular assessment tool. The ePortfolio has the added benefit of involving the student in the assessment process. John Zubizaretta (2004), in his book *The Learning Portfolio*, gives validation to the discussion of reflection as an assessment tool for the student, as well as, educators calling them ‘learning ePortfolios.’ He states that the primary motive of a

learning ePortfolio is “to improve student learning by providing a structure for students to reflect systematically over time on the learning process and to develop the aptitudes, skills, and habits that come from critical reflection” (p. 15). Zubizaretta (2004) identifies reflection, documentation, and collaboration as three fundamental components of the learning ePortfolio. This takes the emphasis off the instructor and puts equal weighting on the reflection between student and instructor throughout the ePortfolio process.

If traditional measures of assessment in education are unable to qualify the learning of students through authentic assessment measures then it is necessary to seek “alternative” assessment methods that showcase the evidence of the work by the student and illustrates the student’s skill at applying their knowledge based on clearly defined standards (Willis, 1996). This gives ePortfolios an amazing amount of flexibility as the curriculum can be integrated in any sequence. The content, as indicated previously, can include any performance measure that the curriculum can offer. This includes multiple measures of the same assessment. As the criteria for assessment is linked to the curriculum the student is able to draw upon a clear set of expectations regarding what is required. The ePortfolio becomes an effective tool to help students “see gaps in their learning, determining strategies that support their learning, celebrate risk taking and inquiry, set goals for future experiences, and see change and development over time” (Porter & Cleland, 1995, p. 23).

Ultimately, the goals of the creator of the electronic portfolio determine the content and thus the intention of the ePortfolio. “The process of e-portfolio development encourages students to become more actively involved in planning, and more responsible for achieving, their own educational goals” (DiBiase, 2002, p. 8). These feelings

regarding the value of reflection have taken on different terminology over the years, but all refer to the learning that takes place through the individual. Paulson and Paulson (1991) used the term story telling as a metaphor to describe this activity. They said,

An ePortfolio tells a story. It is the story of knowing. Knowing about things. . . . Knowing oneself. . . . Knowing an audience. . . . Eportfolios are students' own stories of what they know, why they believe they know it, and why others should be of the same opinion. An ePortfolio is opinion backed by fact. . . . Students prove what they know with samples of their work. (p. 2)

Because of inherent weakness of the traditional examination in determining a student's abilities, competencies, and practical experiences, a more meaningful and valuable assessment tool was needed to emphasize the critical nature of the student's role in the assessment process. This seemed to strongly support the position of Green and Smyser (1996) as they stated that the one-size-fits-all approach reflects something being done to students as opposed to something students do for themselves. It is for that reason that many programs are using the ePortfolio as a systematic part of their formal program evaluation. Veenema and Gardner (1996) were quick to point out that,

According to multiple intelligences theory, not only do all individuals possess numerous mental representations and intellectual languages, but individuals also differ from one another in the forms of these representations, their relative strengths, and the ways in which (and ease with which) these representations can be changed. (p. 2)

Electronic portfolios are increasingly seen as an important activity in reflection and building records of achievement (Banks, 2004). The variety in uses and organization provides an apparent infinite number of ways in which to present artifacts of knowledge and learning (Bruce & Levin, 1997, p. 5). It is for that reason that ePortfolios have become a more widely recognized method used for assessment in education. Nearly 90% of schools, colleges, and departments of education use ePortfolios to make decisions

about candidates (Salzman, Denner, & Harris, 2002). This comes from the myriad of proponents for ePortfolios who cite strong theoretical support for their use (i.e., Shulman, 1998; Wiggins, 1990; Yancey, 1992).

Martin Kimeldorf (1994), in his book *A Teacher's Guide to Creating Eportfolios for Success in School, Work, and Life*, recognized that ePortfolios are a useful tool to both educators and students. Additionally, he stated that “portfolios help [students in] developing critical thinking, managing, and evaluating their own learning and can motivate students, help them discover who they are as learners, and boost their self-concept” (p. 1). Students determine what should go in the ePortfolio, why it should go in, what story the contents tell, and how the content should be organized and displayed. Of course, the key to student ePortfolios is student control. Relative to educators, ePortfolios are useful in the classroom by helping students develop critical thinking and self-reflection skills. The collection of a student's complete academic information and progression towards an outcome helps to document what students learned and are able to do, thereby providing a complete learning assessment that determines a student's level of skills and abilities. This complete assessment of all learning that has taken place within a student's program of study is the ePortfolio.

Purposes for Using ePortfolios

The first and most significant act of ePortfolio preparation is the decision regarding the purposes for the ePortfolio (Barton & Collins, 1993; Seldin & Higgerson, 2002). Electronic portfolios are simply the digital equivalent of the old paper copy portfolio. The electronic portfolio is merely amassed on the World Wide Web or published on CD-ROM. Yancey (2001) pointed out that “the electronic medium is

particularly suited to two needs of ePortfolio users. First it provides a place to house artifacts. Second, through hyperlinking, it invites one to make connections between and among classes, experiences, and observations” (p. 28). This student engagement in the constructs of curriculum provides the key assumption in the analysis of student learning ePortfolios. Yancey noted that “the engaged learner, one who records and interprets and evaluates his or her own learning, is the best learner” (p. 83). Kimeldorf (1994) stated that “portfolios are a tool for learning and motivation to the extent that students determine what should go in the portfolio, why it should go in, what story the contents tell, and how they should be organized and displayed” (p. 1). This comes in line with constructivist theory, which asserts that learning is predicated on actively constructing the knowledge as opposed to receiving it from another source (Jonassen, 1991). Paulson and Paulson (1994) noted

the [constructivist] ePortfolio is a learning environment in which the learner constructs meaning. It assumes that meaning varies across individuals, over time, and with purpose. The ePortfolio presents, a record of the processes associated with learning itself; a summation of individual ePortfolios would be too complex for normative description. (p. 36)

The dilemma created by ePortfolios has become apparent as the ease of creation and integration of ePortfolios has evolved through electronic media. Helen Barrett (2000) noted that “one of the most exciting developments in the school reform movement is the use of alternative forms of assessment to evaluate student learning, and one of the most popular forms of authentic assessment” (p. 1). As such, ePortfolios became tools not solely for the purposes of supporting student learning, but also aided in accountability for governing bodies and career preparation.

The drive toward accountability requires us, as researchers and practitioners, to find ways to learn from tests and ePortfolios in order to develop a comprehensive

assessment system in which accountability would be demonstrated at many levels related to student achievement. (Stefanakis, 2002, p. 137)

Summary of the Literature Review

The literature review highlighted several major issues. One major issue is the growing demand for skilled employees and the difficulty that employers encounter trying to ascertain the skill level of applicants by using traditional screening methods. Another issue was the success to which educational institutions have employed the ePortfolio in assessing students and applicants for teaching positions (Shulman, 1998; Wiggins, 1990; Yancey, 1992). Lastly, a major issue is the lack of research that has been done on the use of ePortfolios. Zeichner and Wray (2001) noted that, “Despite the current popularity of ePortfolios, there have been very few systematic studies of the nature and consequences of their use” (p. 615). The marriage of innovative assessment techniques within educational institutions and the applicability to stakeholders of those same institutions did not exist in the literature.

Conclusion

Because of the high degree of variability in the way in which ePortfolios have been conceptualized and implemented in teaching, assessment, and accountability, there is a need to gain greater clarity about their usefulness as a tool for programs of study geared toward workplace skills. The ePortfolio has been used and studied for many years in various schools of education. Carney (2004) noted that the research literature on ePortfolios has not changed much in the years since Herman and Winters (1994) published their article: *Eportfolio Research: A Slim Collection* that “Collections of writing are considered here as a special case of a class of new performance assessments known as “ePortfolio assessments” (p. 1).

Are these ePortfolios a superior tool in the screening of job applicants? The literature confirms the ability to use the ePortfolio in various applications to meet institutional and stakeholder demands. It makes little sense to discuss the benefits of using ePortfolios in authentic assessment, without an understanding of the particular conditions under which they are constructed and the purposes toward which they are directed for each party in the process. It is for this reason that further research into the Career Portfolio is necessary to understand what these parties require to authenticate the skills they seek to confirm.

Unfortunately, the empirical evidence to support such claims is mainly anecdotal. Lyons (1998) noted: “there is not yet a body of systematic data documenting their [ePortfolio] uses or their long-term consequences” (p. 247). Zeichner and Wray (2001) echoed these sentiments: “Despite the current popularity of ePortfolios, there have been very few systematic studies of the nature and consequences of their use for either assessment or development purposes” (p. 615).

As noted, ePortfolios offer rich possibilities for measuring student learning outcomes. With the increased pressure for better understanding of student learning and how to prove it, ePortfolios illustrate the learning and skill development for the student, faculty, and/or the prospective employer, and demonstrate that learning and skill attainment to multiple audiences (Cambridge et al., 2001, p. 1).

The concern is that as ePortfolios move toward institutional assessment, the student loses control of the artifacts and stories that they deemed essential in their educational journey. Paulson and Paulson (1994) noted

the purpose of the [positivist] ePortfolio is to assess learning outcomes and those outcomes are, generally, defined externally. Positivism assumes that meaning is

constant across users, contexts, and purposes. The ePortfolio is a receptacle for examples of student work used to infer what and how much learning has occurred. (p. 36)

From the institution's standpoint, a real balancing act must occur to produce measures of student learning that can be used within the institutional assessment processes while still giving the student a voice through which to market their skills.

Need for the Study

Electronic portfolios have become an increasingly popular assessment method in education. Nearly 90% of colleges of education use ePortfolios in their evaluation processes (Salzman et al., 2002). However, even with such widespread implementation, a gap in the research exists in the use of the ePortfolio in authenticating skills to potential employers outside the discipline of education. The voices of manufacturing and service sector employers seeking highly skilled employees have not been heard. Letting the voices of these employers guide the collection of data will help in the development of a theory that ascertains the applicability of the ePortfolio as a skills assessment tool outside the educational institution. Employers can benefit by learning about the experiences of those using an ePortfolio in the hiring process. Career and technical education faculty can gain a greater feel for the specific skills graduates of their programs will be required to authenticate in obtaining employment upon graduation. Administrators can also benefit from this study as they are able to begin to analyze the curriculum within various programs of study to determine if it is representative of the skills employers are seeking in graduates of the representative programs. If results show that employers find the ePortfolio to be a tool that is more useful than the traditional cover letter, resume, application, and paper portfolio in the hiring process, students will benefit from the

knowledge pertaining to the specific skills required for employment within a field of study. The purpose of this study was to answer these questions by allowing the employers to speak for themselves.

CHAPTER 3

METHODS AND PROCEEDURES

Introduction

The purpose of this qualitative multi-case study was to determine if manufacturing and service sector employers find value in the use of an ePortfolio in the hiring process and if a suggested template could be developed to be used in career and technical education. The researcher explored how Human Resource professionals from the manufacturing sector and the service sector use the ePortfolio in personnel selection. Peter Drucker (2008) noted that,

Making people decisions is the ultimate means of organizational control. No organization can perform better than its people. And it does not help to search for better people, because there is generally no such thing. There are only people in the right jobs and people in the wrong jobs. (p. 315)

Kimeldorf (1997) stated that, “many employers are experimenting with new ways of recruiting and screening” (p. 1). Brammer (2007) denoted the advantages of ePortfolios in the employment screening process as he stated, “there is little argument that ePortfolios are richer media than regular resumes” (p. 5). While employers are searching for a best match of applicant and position, technology is providing a means by which applicants can provide evidence of their skills and abilities, but little is known about how employers are using ePortfolios in the screening process. Yancey (2009) noted, “Most e-portfolio projects are still at beginning stages and we are still learning about the critical relationships that define them – particularly the relationship of any given model for e-portfolios (be it focused on learning, outcomes, or career preparation)” (p. 29). The qualitative research methods used in this study were designed to aid in exploring these relationships between the use of an ePortfolio in the initial screening process of an

applicant by employers in the manufacturing and service sectors by examining the following research questions:

1. Are there advantages of an ePortfolio over that of traditional pre-employment screening processes?
2. Does the ePortfolio showcase the skills that a candidate possesses in comparison to the skills required on the job to provide authentication of these necessary skills?
3. Are ePortfolios of value to manufacturing and service sector employers in the assessment of an applicant's skill level during the hiring process?
4. Are there advantages of an ePortfolio over that of a text based portfolio?
5. What information do employers of career and technical students find useful and expect in an ePortfolio?
6. Can a template be developed that will be perceived to provide authentication of workplace skills useful to hiring officials in various technical areas?

Chapter 3 describes the relevance of qualitative research for this study, and further describes the research questions, the multiple case study approach, the assumptions of qualitative research, the role of the researcher, the factors affecting internal and external validity, the sampling method, the data collection procedures, the data analysis, and the verification procedures.

Assumptions of Qualitative Research

Qualitative research seeks to make sense of complex issues or situations through the participants in the study, in an effort to develop a theory or a deep understanding of the subject matter. Qualitative research is about “ways of seeing” (McCombs &

Maylone, 1998). No matter what methodology is used in researching a phenomenon, understanding must be a product of that research. Qualitative research is a process of discovering how knowledge is perceived and acquired in an effort to better determine how the social world is interpreted, understood, experienced, or produced. This understanding of the phenomenon comes through a process of refinement through the collaboration of the researcher and the research subjects in developing, interpreting, and describing the knowledge in an effort to bring about a fuller and richer picture (Mertens, 2003). It is therefore necessary for qualitative research studies to focus on the process, meaning, and fieldwork, becoming descriptive and inductive.

The qualitative process must center on the role of the researcher in the study.

Creswell (2003) noted,

Research is an inquiry approach useful for exploring and understanding a central phenomenon. To learn about this phenomenon, the inquirer asks participants broad, general questions, collects the detailed views of participants in the form of words or images, and analyzes the information for description and themes. (p. 58)

A qualitative researcher's critical interpretations create meaning through the development of a finite number of variables that seek to control the experimental environment so that the deductive nature of this form of research can determine answers to the question of "how?" The effects of these answers allow the researcher to make predictions about other occurrences and create standards that should remain constant as situational effects of the problem statement remain constant (Creswell, 1998).

The qualitative researcher is directly involved in the fieldwork of the study. The purpose of this research was to fully envelop the topic and marry it with the researcher. The researcher sought to focus purely on the process of the study in an effort to determine how one can best learn from the participants in the study. The researcher's tools

consisted of interviews, observations, and case studies. These instruments were geared toward understanding the participants' viewpoints. This created cohesion between the researcher and the participants and is therefore not considered an objective study. After all, if the study was objective, then the researcher would be unable to develop the relationship with the participants necessary to fully understand the participants' views. It was therefore necessary, as Hatch (2002) noted, for qualitative researchers to spend considerable time with the participants of the study to ensure that they are observing and noting the experiences accurately. This investment of time allowed the researcher to make critical interpretations of the data that has been garnered.

The descriptive nature of qualitative research allows for unique interpretations of events for a given group of individuals that form the research group. These interpretations are not developed to generalize the findings across all groups, but to create greater understanding of phenomena that are not widely understood (Creswell, 1998). It is for this reason that qualitative research is linked to the constructivist paradigm (Creswell, 2003). Paulson and Paulson (1994) defined the constructivist paradigm as "being predicated on the assumption that "meaning varies across individuals, over time, and with purpose" (p. 36). It was therefore difficult to make broad generalizations about the findings in this study.

From these interrelated processes, the researcher is able to develop inductive theories, hypotheses, and concepts. The hypothesis is not the key to starting research within a qualitative study; instead, the hypothesis may change or be adapted as the research progresses. As Hatch (2002) has noted, it is therefore a matter of the questions that are being asked in the research forming the direction in which the research will go

(quantitative vs. qualitative) and not the type of research determining the questions to be drawn upon.

Rationale for Using a Qualitative Approach

The rationale for using a qualitative approach to this study was threefold. First, the vary nature of the research questions lend themselves to a qualitative approach. The understanding of “how” employers are using ePortfolios in the hiring process is critical to this study. Creswell (2003) asserted that a qualitative approach is best suited to explore research questions that seek to determine how a phenomenon occurs. Secondly, the research is inductive in nature. There were no preconceived hypotheses set forth in this study. Finally, the researcher played an active role within this study throughout the process. The role of the qualitative researcher is one who builds and maintains relationships between the researcher and participants (Hatch, 2002, p. 51).

The Role of the Researcher

Qualitative research, according to Hatch (2002), is based on the interactivity of the researcher and the participants in the study with interviews being the primary mode of data gathering to delineate an understanding of the problem that has been identified. In addition, Hatch (2002) noted that qualitative research is based on objective processes between the researcher and what is being researched, emphasizing the cause and effect relationships amongst the variables to produce generalizations that lead to predictable outcomes (p. 91). Creswell (2003) stated,

research is an inquiry approach useful for exploring and understanding a central phenomenon. To learn about this phenomenon, the inquirer asks participants broad, general questions, collects the detailed views of participants in the form of words or images, and analyzes the information for descriptions and themes (p. 58).

The purpose of this research was to fully envelop the topic and marry it with the researcher. The researcher sought to focus purely on the process of the study in an effort to determine how best to learn from the participants in the study. The researcher's tools consisted of interviews, observations, tours, data gathering, and case studies. These instruments are geared toward understanding the participants' view points.

The researcher has personally taken classes on the use of ePortfolios and has instituted classes within the curriculum of Wabash Valley College that teach students how to develop ePortfolios. Additionally, the researcher has developed a working relationship with each of the members of the Wabash Valley College Advisory Council. These relationships with Advisory Council members have been developed for the assessment of curricula within the various career and technical programs offered at Wabash Valley College. These relationships and my working knowledge of ePortfolios allowed for physical and emotional entry into the research.

By conducting this research, Wabash Valley College will benefit from the results of the study. Understanding the critical attributes of the hiring process used by employers for each career and technical program that is offered by Wabash Valley College will help graduates better authenticate their skills to potential employers and lead to greater employment opportunities.

Multiple Case Study Approach

A multiple case study is an exploration of a "bounded system" or a case over time through detailed, in depth data collection involving multiple sources of information rich in context. It is also the understanding of many cases framed from interest in what is common and particular about each case (Creswell, 1998, p. 61).

“The purpose of case studies is not to represent the world, but to represent the case” (Stake, 1995, p. 245). The research for this study will be confined to 12 cases that represent six employers from the manufacturing sector and six employers from the service sector. This will not be representative of all employers within the fields of manufacturing and healthcare, but will provide for a deep level of emersion through the experience with each of the cases in this sample. “The utility of case research to practitioners and policy makers is in the extension of experience. The methods of qualitative case study are largely the methods of disciplining personal and particularized experience” (Stake, 1994, p. 245). This type of research was chosen because the researcher must consider whether to study a single case or multiple cases. Multiple cases were studied in this research to develop an understanding of the skills manufacturing and service sector employers find essential to uncover in the hiring process. Lastly, the “boundaries” of this case were the most challenging. As the participants of the study were interviewed, their responses dictated the direction for further analysis and study. In this study, the breadth of information obtained from each participant was used to construct a suggested ePortfolio template for the career and technical education disciplines of Manufacturing and Nursing.

Sampling Method

The survey population for this sampling plan came from the Advisory Council at Wabash Valley College. This is a group of 120 individuals that represent 82 companies throughout the college district. These individuals hold a wide range of positions (from administrative to laborer), giving the council balance and a blended perspective of skills needed for employees within the fields represented. These members of the advisory

council regularly hire qualified employees in skilled positions. Their knowledge of the industry and of the necessary skills that an applicant within that specific industry needs is essential. There are ten career and technical education programs at Wabash Valley College, each had a twelve member advisory council that meets twice a year. The ten career and technical education programs were:

- Agricultural Technology,
- Diesel Equipment Technology,
- Energy Technology,
- Early Childhood Education,
- Gunsmithing,
- Manufacturing Technologies,
- Marketing Business Management,
- Nursing,
- Radio-TV Broadcasting, and
- Social Services Specialist.

For the purposes of this study, the Manufacturing Technologies program and the Nursing program were selected to determine if employers in these two distinctly different sectors of the economy found value in the use of the ePortfolio in the hiring process and to see if a suggested template for an ePortfolio could be developed for these two Wabash Valley College career and technical education programs. For this study, the researcher and the dissertation committee felt it important to study the similarities and differences in the use of an ePortfolio as a pre-employment screening tool by human resource professionals from different industries. This led to an understanding of not only how the

ePortfolio was used differently in these two industries but also what components of an ePortfolio were most valuable in the adaptation of a suggested template for students in various career and technical education programs.

The Manufacturing Technologies program is comprised of curriculum from three other programs on campus that include Electronics, Machine Shop Technology, and Industrial Studies programs. The Manufacturing Technologies program trains students to work in the manufacturing sector of the economy. These students acquired very specific, tangible skills that employers could use to facilitate the production of goods in a myriad of industries. The Advisory Council representatives for these three programs served jointly as the representatives of the Manufacturing Technologies program. The 36 members of the Manufacturing Advisory Council formed the group from which a sample was drawn for use in the discipline of Manufacturing Technologies.

The Nursing Program was chosen for this study to determine how employers within the service sector of the economy used the ePortfolio in the hiring process and to see if a suggested template for an ePortfolio could be developed for a service sector program. While students within the Nursing Program acquired very tangible skills that employers sought to authenticate for various hospitals units, nursing homes, home health agencies, and physician offices, those students ultimately were hired to work within a service sector business. Determining the similarities and differences that exist for students completing an ePortfolio to work in these two distinct sectors of the economy not only benefits the student in gaining employment, but potentially aids Wabash Valley College in the development of curriculum and program assessment measures. The structure of the Nursing Program was similar to that of the Manufacturing Program. It

had a 12 member panel that met at least twice a year to review practices, curriculum and clinical procedures for the students within the Nursing Program. These 12 members formed the group from which a sample was drawn for use in that discipline.

The sampling methods employed for this study were homogenous, criterion, and purposeful sampling. These three sampling methods were employed to gain a valid representation of the issues regarding this topic of study.

Homogenous sampling simplifies analysis and reduces variation (Patton, 1990). This sampling method allows for the open coding of themes to be more congruent as participants are of similar backgrounds. Each of the participants in this study was in a position to make decisions about the employability of an applicant. Additionally, each of the participants was from either the manufacturing sector with close ties to the automotive industry or the service sector within the field of healthcare.

Criterion sampling is predicated on the researcher picking a criterion and only using the cases that meet that criterion in the research (Patton, 1990). The criterion used in this study was the use of the ePortfolio as a pre-employment screening tool for the authentication of workplace skills by individuals in a hiring capacity.

Purposeful sampling was used to select 12 total individuals equally representing the Manufacturing and Nursing programs. Within these two industries, the hiring professionals were selected to cover a range of sizes of businesses within the manufacturing sector. The researcher selected companies that varied in size and scope from small, single location manufacturing entities to larger multi-location, nationwide entities to large, worldwide entities. Two manufacturing businesses were selected from the local, nationwide, and worldwide groups for participation in the study. This gave

greater breadth to the study as faculty using the findings of this research must prepare students to showcase their skills and work in any of these types of manufacturing concerns. The use of the Nursing Program as a representation of a service sector field within this study required a different breakdown to create the same breadth of coverage within the industry. While nursing does not see a common span within the medical industry from local to worldwide medical facilities, it does have a variation in type of medical setting within which a nurse could work. For this study a purposeful sample was constructed to interview those individuals in a hiring capacity within hospital, geriatrics, home health, and penal system care providers. Since the size of hospitals can vary greatly, an interview was conducted at multiple locations, including a small single location hospital, a larger single location hospital, and a large multiple location hospital. These individuals were interviewed in an effort to determine how employers use the ePortfolio in the hiring process, and to ascertain the critical content that employers seek to review in the applicant screening process within each discipline. These individuals were selected based on their ability to help in the understanding of the use of the resume, cover letter, paper portfolio, and electronic portfolio in the applicant screening processes. Advisory Council members with the most experience in the hiring of skilled labor were selected for use in the study.

Data Collection Procedures

The Wabash Valley College Advisory Council was composed of 120 members from area employers within Wabash Valley College's 12 county district in southeastern Illinois. These 120 individuals were selected for membership on the Advisory Council based on the industries they represent. Each of the 10 career and technical education

programs offered at Wabash Valley College (Agricultural Technology, Diesel Equipment Technology, Energy Technology, Early Childhood Education, Gunsmithing, Manufacturing Technologies, Marketing Business Management, Nursing, Radio-TV Broadcasting, and Social Services Specialist) has a 12 member advisory council composed of individuals with a working knowledge of that discipline. Of those 120 members, this council is composed of 82 individuals representing 72 companies that are in positions to directly affect the hiring decisions for the organizations that they represent. The first meeting of the year for the Wabash Valley College Advisory Council was August 15, 2005. At that meeting, 57 members of the Wabash Valley College Advisory Council indicated that they had used ePortfolios or paper portfolios in their hiring practices and that they had the authority to make decisions or recommendations concerning the hiring of a candidate. Twenty two of the 48 advisory council members representing the disciplines of Manufacturing and Nursing indicated that they had used ePortfolios or paper portfolios in their hiring practices and that they had the authority to make decisions or recommendations concerning the hiring of a candidate. Six individuals from the Manufacturing Technology's Advisory Council and six individuals from the Nursing Advisory Council were selected for this study based on their experience, size of the company, type of business within the manufacturing or healthcare fields they represented, and their experience using an ePortfolio during the pre-employment hiring process.

Interviews

The interview protocol developed for the members of the Advisory Council was designed to acquire insight into the value of an ePortfolio in the hiring process and to

answer the grand tour and research questions. Appendix F provides a listing of the questions that were asked of the participants in this study. The interviews were semi-structured in nature and were conducted through individual, face-to-face meetings with the participants in the study. A copy of the script used to schedule the face-to-face meetings is located in Appendix B. The face-to-face format was chosen to provide direct access into the participant's field. Notes were taken that included the non-verbal responses by the participant and other items that the researcher observed within the facility where the participant worked. The participants in this study were told of the significance of the study and their ability to terminate their participation at any time. Additionally, each participant was given a copy of the Informed Consent form found in Appendix C to sign.

The use of a semi-structured interview protocol allowed for the use of probing questions to expand concepts that needed greater clarity or expand on statements made by participants during the interview process. Each of these semi-structured interviews were conducted and recorded by the same researcher for consistency. Each of the interviews was recorded in its entirety. The recorded interviews were then sent to a third party to be transcribed. Appendix D contains a copy of the confidentiality agreement between the transcriptionist and the Principal Investigator. Field notes were taken during each interview and additional documentation was procured from participants when available.

Expert Panel

Based on the information gleaned from the literature review and the research questions developed for this study, a draft questionnaire was prepared and given for

review to a few nationally known specialists in the use of electronic portfolios and to an expert in the use of advisory councils in career and technical education.

The first reviewer was Carla Hagen Piper, faculty coordinator of multiple and single subject credential programs at Chapman University. Her research emphasis had been on the use of technology infusion in the classroom since 1993. Included in Dr. Piper's research was an extensive study on the use of electronic portfolios in the assessment of education. An advocate of the portfolio for many years, Dr. Piper had worked with a number of organizations to infuse the richness and interactivity of multimedia into documents used by businesses every day. As a portfolio assessment and technology expert, Dr. Piper provided feedback that aided in the questionnaire content and format.

The second reviewer was W. Tracy Dillon, Chair of the English Department and Director of The Center for Excellence in Writing at Portland State University. Dr. Dillon had taken a special interest in the use of advisory councils in the educational enterprise. He recently authored an article in *Portfolio Assessment* entitled "Involving Community in Program Assessment." His background in using community advisory committees in education and the use of the electronic portfolio made him an obvious choice as a reviewer of the questionnaire.

The third reviewer was Kathleen A. Pampe, Associate Dean of Career Education and Economic Development and the Career Dean for Illinois Eastern Community Colleges District, which was a multi-college district in the State of Illinois. Mrs. Pampe had overall responsibility for the District's program review processes, the District's Small Business Development Center, Illinois Employment and Training Centers, and Business

and Industry Services. She also collaborated with the K-12 school districts toward the advancement of education-to-careers initiatives. Mrs. Pampe's feedback on the questionnaire content was detailed and crucial.

Each of the reviewers provided feedback that was helpful in the creation of a final questionnaire. Where necessary, items within the questionnaire were reworded, removed or moved for comprehensiveness, clarity, and validity. These alterations resulted in an instrument ready for implementation in the study. The questionnaire consists of 16 questions and can be found in Appendix F. Questions pertaining to demographic data about the individual being interviewed and the company the individual represents were omitted from the questionnaire due to the fact that this information is already on file with Wabash Valley College for each advisory council member. Throughout the course of this study it was necessary to ask probing questions that differed from participant to participant as the data coming from the interviews dictated.

Participant Demographics

The participants in this study were 12 members of the Wabash Valley College Advisory Council who indicated they had the authority to make hiring decisions and had experience in using an ePortfolio in the hiring process. Purposeful sampling was used to select six individuals representing the manufacturing sector and six individuals representing the service sector through the Manufacturing and Nursing Programs, respectively. These individuals were selected based on their ability to help in the understanding of the use of ePortfolios in the hiring processes. Advisory Council members that met the homogenous, criterion, and purposeful sampling methods

delineated in this study were selected for interviews in the study. Tables 1 and 2 provide details about each of the participants in the study. A pseudonym is being used for each

Table 1

Demographics of Manufacturing Participants

Pseudonym	Title	Location	No. of Employees	Sales	Experience (years)
JE	President	Illinois	25	\$7.0 million	27
DN	Human Resource Specialist	Illinois	300	\$1.0 billion	3
BN	V. P. of Human Resources	Indiana	1,500	\$4.0 billion	9
CH	Director of Human Resources	Illinois	540	\$3.7 billion	13
CA	Group Leader	Indiana	163	\$2.5 million	5
SB	President	Illinois	26	\$6.0 million	12

Table 2

Demographics of Nursing Participants

Pseudonym	Title	Location	No. of Employees	Beds	Experience (years)
CW	Director of Human Resources	Illinois	186	23	4
JC	Nurse Recruiter	Indiana	3,269	523	2
PM	Contract Manager	Illinois	2,026	570	5
AM	Nurse Recruiter	Indiana	600	365	2
WT	Director of Nursing	Illinois	360	125	3
SS	Care Manager	Illinois	310	125	3

person and the actual name of their employer has been omitted with emphasis being placed on the size of the organization, number of employees, and years of experience each participant has in the screening of applicants.

Data Analysis Procedures

Data analysis in a qualitative study is a process that is said to be both simultaneous and iterative (Creswell, 1998). The process involves the collection and analysis of data as simultaneous activities. It also involves movement back and forth between collection and analysis as the data dictates. This allows the researcher to move the study in the direction that the data dictates as the richness of the stories begin to manifest.

This study followed Creswell's six steps of handling qualitative data. The analysis of data in a qualitative study begins with "preparing and organizing the data for analysis" (Creswell, 1998). For this study, it was necessary to have the recorded interviews transcribed in an effort to convert the data to text files that could be analyzed using an open coding process. Secondly, Creswell noted the importance of "exploring the data" (Creswell, 1998). The first step was to conduct an exploration of the data that was collected in an effort to immerse the researcher in the words and perceptions of the participants in the study. Once the data had been adequately reviewed, it was necessary for the researcher to begin an analysis that made sense of the data as it related to the study by developing lists of codes to label the content of the participant's response. Creswell defined this as "describing and developing themes from the data" (Creswell, 1998). This process included (a) transcribing and organizing the data; (b) forming initial impressions of the data in the margins of the transcriptions, field notes, and information procured

during the interview period; (c) aggregating the data with inferences to establish categories; (d) developing a table of similar codes and themes that were developed from multiple participants in each discipline. As the transcriptions, field notes, and developing themes were read and reread, the codes were placed into a spreadsheet to better organize, sort, and query the data. These processes refined the codes and themes from the data and ultimately denoted the layers and interconnectedness of the findings from the research questions. The next step was to begin constructing a narrative to explain what was found in the study and to report those findings (Creswell, 1998). It was then necessary to interpret the findings. This interpretation requires the researcher to find meaning through the data interpretation (Creswell, 1998). This interpretation required the assimilation of the data in this study into the categories that ultimately formed the suggested template for the ePortfolio for both disciplines.

A critical step in the analysis process was gaining feedback from participants to verify the transcription of statements previously made. Lincoln and Guba (1985) noted that member checking is the most critical technique for establishing credibility. Each participant was given a transcribed copy of the interview to review for errors. Once the participants validated the data, made changes, and returned the data to the Principal Investigator, the data were reduced by looking for similarities in words used amongst the participants. A chart was developed that categorized the usage of key terms and ideas in an effort to visualize the information. The development of coding or categories is another approach to reducing the data (Creswell, 1998). A list of tentative codes was developed and used as the data was reviewed. The data were then reviewed multiple

times to determine the categories that best defined the information that was presented. Finally, the data was compiled into theoretical frameworks for use in the study.

Verification Procedures

Researchers agree that qualitative inquirers need to demonstrate the credibility of their studies (Creswell & Miller, 1997). To that end, the major verification procedures applied to this study were the clarification of researcher bias, member checking, and peer debriefing.

Clarification of Researcher Bias

This validity procedure allows the researcher to reflect on the social, cultural, and historical forces that may affect their interpretation (Creswell & Miller, 1997). The researcher has personally taken classes on the use of ePortfolios and has instituted classes within the curriculum of Wabash Valley College that teach students how to develop ePortfolios. Additionally, the researcher has developed a working relationship with each of the members of the Wabash Valley College Advisory Council. These relationships with Advisory Council members have been developed for the assessment of curricula within the various career and technical programs offered at Wabash Valley College. These relationships and my working knowledge of ePortfolios allowed for physical and emotional entry into the research. In an effort to mitigate the potential for researcher biases in this study several strategies were implemented:

- interview participants attested to the accuracy of their transcribed interview by signature;
- an outside panel of experts provided objective feedback on the design of the study; and

- a third party experienced human resource professional in the manufacturing discipline and the nursing discipline reviewed and provided feedback on the interpretation of the themes developed from the research.

Member Checking

This validity procedure provides a shift from the researcher to the participants within the study (Creswell & Miller, 1997). Lincoln and Guba (1985) considered member checking to be “the most crucial technique for establishing credibility” (p. 314). Member checking consists of allowing participants to review the data and interpretations that have been garnered from their participation in an effort to determine accuracy (Creswell & Miller, 1997). Each of the participants in the interview process was given the opportunity to review and make corrections to the transcription copy of the interview they received in an effort to determine if the participants’ views were accurately represented. Each participant in the study signed a copy of the transcribed notes from their interview to denote the accuracy of the transcription. .

Peer Debriefing

This validity procedure is used to enhance accuracy by involving a person that reviews the study and asks questions of the researcher that need to be clarified (Creswell, 2003). This study included the review of the themes and subsequent templates that were developed within the manufacturing and nursing disciplines by seasoned human resource professionals. These professionals provided feedback on the material gleaned from the interviews in an effort to determine those areas within the study that needed further investigation. This process took place after the interview protocol began and led to changes within the protocol as concepts began to evolve from the data. They reviewed

the data after it was transcribed from the participants in the study and provided feedback regarding necessary steps to fulfill the research goals of the study. Review of the material gleaned and compiled from the human resource professionals in the area of nursing was completed by Lori Philips. Lori A. Phillips, DNP, RN, NP-C, has been involved in virtually every level of nursing. Dr. Phillips spent 30 years as a clinician and she has practiced as an RN, a nurse practitioner and an administrator. She also spent seven years educating nurses as a tenured faculty member and eventually as the Department Head of Nursing. Dr. Phillips was currently the Vice-President and Chief Nursing Officer at Gibson General Hospital in Princeton, Indiana. Review of the material gleaned and compiled from the human resource professionals in the area of manufacturing was completed by Trish Berry. Mrs. Berry had a Bachelor Degree from Eastern Illinois University and had over 25 years experience in human resources for a large manufacturing entity with nearly 2,000 employees. She had experience hiring skilled and administrative employees in various manufacturing fields. She currently serves as the Employee Relations Manager at this large manufacturer. The review completed by these individuals aided in the comprehensiveness and validity of this study.

Development of a Suggested Template

Data collected through the interview process and refined by the validation of the data by representatives of each discipline who have experience using ePortfolios were used to develop a template that depicts the critical elements necessary for a complete ePortfolio for use in the manufacturing and nursing fields.

Ethical Considerations

Prior to conducting the study a proposal was submitted to the researcher's advisor, Dr. Ronald Joekel, and subsequently to the Project Supervisory Committee. Prior to approval of the project a meeting with the members of the Supervisory Committee was held on May 16, 2006. At that meeting committee members made the recommendation to begin the research phase of the study. Following the approval of the project proposal, an initial University of Nebraska, Lincoln Internal Review Board (IRB) application was completed and submitted for approval. The IRB requested completion of a Collaborative Institutional Training Initiative (CITI) course for the protection of human research subjects. This course was completed and IRB authorization was received prior to conducting research. The IRB approval number (200605398) was stamped on the top right-hand corner of each Letter of Informed Consent that was signed by each participant prior to conducting the research. A copy of the informed consent form is included as Appendix C.

The protection of each participant's identity is of the greatest concern in this study. The identity of each participant is kept confidential by providing each of them with a pseudonym. Participants in the study were provided with a recommended pseudonym and allowed to approve or change their pseudonym that was used in this study. Appendix E contains the form that was used in obtaining the pseudonym. All references to various participants will be made through this pseudonym. Additionally, a pseudonym will be given to each corporation represented by the participants in the study to further protect the identities of these individuals and the corporations they represent.

CHAPTER 4

DATA COLLECTION AND FINDINGS

Introduction

As was previously stated in Chapter 1, the purpose of this study was to investigate the use of electronic portfolios in the pre-employment screening process and to determine if the findings from that investigation could be leveraged to create a suggested template for use within the Manufacturing and Nursing Career and Technical Education programs at Wabash Valley College. Since the focus required exploring the perceptions of those within certain industries regarding the use, application, and potential requirements of an electronic portfolio for a given field of study, the study required the use of qualitative methods to gain insight into its relevance within the manufacturing sector and service sector. This chapter outlines the collection of data through semi-structured interviews of 12 participants, an overview of each of the participants, and an overview of the institutions represented. This includes an analysis of the notes, documents, and observations of the Principal Investigator that were collected for use in this study. The findings portion of this chapter presents the data from the interviews, field notes, observations, and procured documents that pertain to each of the research questions.

At this point, it is imperative to provide an overview of each of the participants and the organizations they represent before exploring the data collected from the research.

Overview of Institutions and Participants

This study was conducted using 12 participants equally representing the disciplines of manufacturing and nursing. Each of these participants was interviewed at their place of employment and included a tour of their facilities. Each of the companies represented by the participants in this study was chosen to give a more blended perspective to the study. These companies varied by size, business segment, number of locations, and number of new hires per year. At the time of the interview, each of the 12 participants involved in this study had the authority to make hiring decisions and had experience using an electronic portfolio in the hiring process. Six of the participants in the study were male, and six of the participants were female. The balance of the male to female ratio of the participants is overshadowed by the breakdown within the disciplines of manufacturing and nursing. Within the discipline of manufacturing, five of the six participants were male, and within the discipline of nursing five of the six participants were female. Participants within the study believed this was a typical distribution within these fields.

Healthcare Institution A

Healthcare Institution A was one of the first healthcare institutions in the state of Indiana and the oldest healthcare institution in this study. This institution had a rich history dating back to the late 1800's. Since its inception, this institution grew into a healthcare system that encompasses six patient access facilities that include the main medical center, a hospital for women and children, a rehabilitation institute, a surgery center, and home health care. This made this institution one of the largest healthcare

facilities in the market it served. The consolidated facts for this institution were as follows:

Staffed Beds:	523
Admissions:	16,122
Outpatient visits:	393,910 (includes Outpatient Surgery)
Emergency Department Visits:	52,573
Employees:	3,269
Net Revenue:	~\$900 million

This institution has been recognized as a Magnet® designated facility by the American Nurses Credentialing Center (ANCC). Only the top six percent of the hospitals in the United States have received this recognition. This institution was chosen for participation in the study based on its size, scope of offerings, and its reputation for hiring the best nurses.

Participant AM. Participant AM held the title of Department Head of Human Resources and Development at Institution A. She is an experienced nurse and human resources professional. She had worked in three different hospitals as a nurse and had been in her current position since 2000. She held a bachelors degree in nursing and had spent nearly 100 hours in training within the human resources field. Under her leadership, Institution A continued to grow in spite of the great numbers of baby boomers that had retired in the recent past. This institution averaged hiring 75 nurses a year and had not had a single month in the last 5 years without a nursing position in the screening process for employment. This participant completed an interview, demonstrated best practices, gave a tour of the corporate center, and provided documents for analysis.

Healthcare Institution B

Healthcare Institution B was a Non-Profit, Christian organization founded by a global reaching church denomination. This healthcare facility had a rich history of over 100 years and had expanded its scope of care to provide fully five levels of care from independent living to skilled nursing. The facility catered to the living arrangements of the elderly by providing rehabilitation service to individuals affected by Alzheimer's, orthopedic conditions, neurological conditions, cardiac disease, spinal cord injuries, cancer, pain management, brain injury, general debilitation, wound care, arthritis and swallowing disorders. The facility was located on a single campus that housed over 300 residents and 360 employees.

Participant WT. Participant WT was the director of nursing at Healthcare Institution B. She had 14 years experience as a nurse in a hospital setting and 4 years experience as a nurse in a geriatrics setting. She had 8 years experience in the management of all aspects of the nursing process as the Director of Nursing at this large geriatrics facility. She had overseen many of the advances the facility made in recent years that required diversifying the nursing staff to accommodate a broader vision to move from a skilled care facility to one that additionally included independent living, assisted living, and respite care. The additions of these services transformed the workforce at Healthcare Institution B. Participant WT held a bachelors degree in nursing and utilized a committee structure for all nursing hires. She indicated that this facility had low turnover and averaged hiring 20-25 Certified Nursing Assistants (CNA), Registered Nurses (RN), and Bachelors of Science Nurses (BSN) each year. This participant met with the

researcher on multiple occasions, completed an interview, gave a tour of the facilities, and provided documents for analysis.

Healthcare Institution C

Healthcare Institution C was a critical access hospital that was a county-owned and supported facility. This single campus facility had provided primary care services to a rural region of southern Illinois for more than 60 years. This institution had seen growth in the number of services offered on campus since constructing a new hospital in 2000 and constructing 12,000 square feet of office space for physician offices on campus in 2004. The inclusion of a rural health clinic, urgent care clinic, specialty clinics, and a Rehabilitation Services Department created a full-service healthcare facility. Healthcare Institution C was a small healthcare facility located in a rural area. The consolidated facts for this institution were as follows:

Staffed Beds:	22
Admissions:	1,328
Outpatient visits:	1,192 (includes Outpatient Surgery)
Emergency Department Visits:	8,617
Employees:	193
Net Revenue:	~\$16 million

This healthcare institution was accredited by the Joint Commission for compliance with nationwide hospital standards for excellence in patient care delivery. This institution was chosen for participation in the study to allow the practices within a small, high quality hospital to be reflected.

Participant CW. Participant CW was the Senior Manager of Healthcare Institution C and had nearly 18 years experience in the human resources field. She had spent 13 years as a human resources generalist at a large regional hospital before taking the human resources position at Healthcare Institution C. Participant CW obtained an associate degree (RN) and bachelor degree in nursing and practiced in the nursing field for three years prior to taking her first administrative job in healthcare. She had a passion for continuing education and training of employees. She was known for requiring floor staff at the hospital to complete individual education plans for a 1-year, 3-year, and 5-year timeframe. She was regularly a speaker within the management company affiliated with Institution C on topics regarding employee selection and retention. This institution hired between 12 and 15 nurses of various designations each year, sometimes going more than a month without a nursing opening. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the facilities, and provided documents for analysis.

Healthcare Institution D

Healthcare Institution D was a mature healthcare group of six hospitals located on three campuses that had served a 26 county region that included the population of southern Illinois, Indiana, and Kentucky for nearly 120 years. This healthcare institution progressively became one of the largest hospitals in the region. The hospital employed more than 600 physicians and was recognized as an acute care teaching hospital that had grown to encompass nearly 40 patient access centers in the area. The primary emphasis of the institution is primary care through family practitioners, internists,

obstetrics/gynecologists, and pediatricians. The consolidated facts for this institution were as follows:

Staffed Beds:	560
Admissions:	18,000
Outpatient visits:	350,000 (includes Outpatient Surgery)
Emergency Department Visits:	65,000
Employees:	4,200
Net Revenue:	~\$619.8 million

This institution had been recognized by J.D. Power and Associates as a Distinguished Hospital for Inpatient Excellence award winner. This award was based on patient feedback and spoke to the care provided by employees of this institution. This healthcare conglomerate was chosen because of its size, scope of services, and reputation for patient care.

Participant JC. Participant JC brought a little different experience to her position of Human Resource Executive with Healthcare Institution D. Holding the position of Nurse Recruiter prior to stepping into an administrative role in the Human Resources Department was unique to this study and provided insight into the attraction of individuals with specific skill sets. This participant earned a bachelor's degree in nursing and a master's degree in nursing before working as a nurse for four years. She worked as the Nurse Recruiter for two years for Institution D prior to taking the position of Human Resource Executive in 2004. This participant supervised the largest human resources staff and hired the greatest number of nurses on an annual basis of anyone in the study. She supervised the hiring of eight nurses per month for the largest healthcare provider in

the study. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the facilities, and provided documents for analysis.

Healthcare Institution E

Healthcare Institution E had been in business since 1995 providing healthcare to those incarcerated in city, county, state, and federal correctional facilities. This institution, with a growing team of more than 2,000 employees, provided healthcare services for more than 250 facilities in 25 states. It offered the complete spectrum of healthcare and behavioral health services designed to meet the needs of the corrections industry to promote quality, cost control, and risk management. These fully integrated medical services, created to comply with federal, state, and local laws and regulations, included onsite medical services, behavioral health services, emergency services, pharmacy management, laboratory/radiology services, and crisis intervention. This institution had grown quickly and had the opportunity for continued growth as inmate populations increased. This institution was chosen for participation in the study based on its size, for-profit status, and niche within the healthcare industry.

Participant PM. Participant PM brought experience from a distinctly different perspective than any of the other participants in this study. This participant received an associate's degree in nursing (RN) and served as a medic in the United States Army for four years before returning to school to complete a bachelor's degree in nursing (BSN) and started work in the healthcare field. This participant served as the offsite manager of the healthcare facility within each of the Midwestern penal institutions that had contracted with Healthcare Institution E for services. As the Regional Manager for Healthcare Institution E, this participant was responsible for all human resources

components within his region. This participant had 11 years experience in his current position and averaged hiring about 15 nurses per year. This participant completed an interview, demonstrated best practices highlights from Institution E, and provided documents for analysis.

Healthcare Institution F

Healthcare Institution F was one of the youngest organizations in the study. This non-profit institution was established nearly 30 years ago with a mission to provide cost-effective and compassionate home healthcare to some of the nation's most vulnerable individuals, particularly the elderly, and individuals with disabilities. As a home healthcare provider, this organization had grown to include 21 counties and over 6,000 square miles in Illinois, Indiana, and Kentucky. As a provider of home healthcare for patients of all ages - from infants to elderly - they were the educators of disease prevention and health promotion. Home health providers were poised to see continued growth as patients spend less time in the hospital, the population continues to age, and the demand for less expensive care continues to increase. This institution was chosen for participation in the study based on its size and niche within the healthcare industry.

Participant SS. Participant SS was the Nurse Manager of Healthcare Institution F. She brought the longest single-institution experience to the study, with 22 years of home health nursing experience. She had been involved in the management of nurses in the home health field for eight years. With an emphasis on quality care and teaching she brought vast knowledge to the study regarding the service aspect of nursing. This participant held an associate's degree in nursing (RN) and had worked in home health all of her career. She had the least amount of experience in hiring nurses of anyone in the

study. This organization hired only about 20 nurses per year and had extended periods each year without a formal search. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the facilities, and provided documents for analysis.

Manufacturing Institution A

Manufacturing Institution A was a global plastics manufacturer and one of the world leaders in injection-molded plastic packaging with established markets in dairy, beverage, healthcare, personal care, meats, sauces and condiments, household chemicals, snacks and confectionary, automotive, paint, agriculture, stretch film, and custom films. They built a business model on their strong commitment to providing employees with state-of-the-art technology and training that produced higher productivity, better quality, and faster delivery. This manufacturer was a nearly 50-year-old company that had 70 manufacturing facilities around the world, employing over 15,000 people and was one of the 100 largest private companies in the United States. The breadth of careers within this manufacturer was an attraction for the study. Skilled manufacturing employment included technicians, maintenance, engineering, automation, graphic design, tool and die, quality assurance, and research and development. With an emphasis on global sustainability through economical, environmental, and social well-being, this company had further emphasized its progressive nature as a manufacturer, distancing itself from other manufacturers. This was an institution whose culture reflected its belief in its employees. It exhibited a commitment to a workplace where ideas, energy, teamwork, and dedication lead to success.

Participant BN. Participant BN was the Director of Human Resources for the single largest private company in this study. He oversaw a large human resources department. This manufacturing facility averaged hiring 75 people each month to maintain a viable workforce. This participant noted that five to ten of those positions were skilled positions. This participant received a bachelor's degree in Business Administration before beginning work in a human resources department of a company that was purchased by Manufacturing Institution A in 1999. With 14 years experience in the human resources field, this participant had amassed a great collection of knowledge and examples of best hiring practices within the manufacturing sector. His familiarity with text-based portfolios, electronic portfolios, and general backup information being used within the hiring process were assets to this study. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the manufacturing facilities at one location, demonstrated best practices, and provided documents for analysis.

Manufacturing Institution B

Manufacturing Institution B was an automotive parts supplier that developed and manufactured components and systems for lighting, general automotive electronics, and aftermarket automotive enhancements that include vehicle modules, air conditioning systems, and vehicle electric systems. This made Manufacturing Institution B one of the largest aftermarket organizations in the world for automotive parts and accessories. This institution was a foreign based corporation that was over 100 years old, and one of the top 50 automotive parts suppliers in the world with annual sales topping \$5.5 billion. More than 25,000 people worked in the 70 production facilities sprinkled around the globe.

This included more than 3,000 engineers and technicians, designers, maintenance, and production personnel.

Participant CH. Participant CH was the Director of Human Resources for the North American headquarters over the past 12 years at this large multinational manufacturing employer. He brought valuable insight into the screening process for highly technical skilled positions. This manufacturing facility hired nearly 20 individuals a month and estimated that nearly 80% of all positions that were filled on an annual basis were skilled positions. Participant CH received a bachelor's degree in marketing and worked nine years as the Director of Human Resources and Marketing at a regional hospital prior to joining Manufacturing Institution B as the Director of Human Resources. He had traveled to seven different countries meeting with human resources professionals within this multinational manufacturer and observing their best practices. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the manufacturing facilities at one location, demonstrated best practices, and provided documents for analysis.

Manufacturing Institution C

Manufacturing Institution C was a small, young, regional container and dunnage manufacturer heavily involved in the automotive industry. Specializing in the design and prototyping of custom packaging using different types of materials this manufacturing institution had seen significant growth since 1995. The original manufacturing facility was 10,000 square feet and the company had grown to include 100,000 square feet of manufacturing and warehousing space. The diversification into dunnage solutions allowed this manufacturer to address issues with Work In Progress (WIP), product

protection or inner-plant movement of parts, and returnable packaging. This manufacturer had 30 employees and generated about \$6 million in annual sales across the Midwest region. This institution had been recognized for its quality management systems with its ISO 9000 quality management designation. This institution was chosen for participation in the study based on its small size, relation to the automotive industry, and structure.

Participant SB. Participant SB was the owner and president of this small regional manufacturer and made all the hiring and firing decisions in the company. He earned a bachelor's degree in engineering and worked as a salesman for 11 years before joining Manufacturing Institution C in 1993. After working four years in sales and then as plant manager for two years he purchased the company and has been the president since that time. Manufacturing Institution C had expanded on a yearly basis and was hiring approximately 10 skilled employees each year. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the manufacturing facilities at one location, demonstrated best practices, and provided documents for analysis.

Manufacturing Institution D

Manufacturing Institution D was a small independently operated unit of a large global company. This global corporation was the leading provider of technical services to manufacturers worldwide. This global corporation had nearly 40,000 employees producing \$7.2 billion in revenue and had provided maintenance services for nearly 150 years to manufacturers. The subsidiary used for this study had provided maintenance services for nearly 12 years to a single automotive manufacturing customer. This subsidiary had 163 employees and sales of nearly \$15 million per year ensuring a smooth

production process for this automotive manufacturer through maintenance, shutdowns, engineering, machine installations, plan engineering, and facility management. This comprehensive range of highly skilled services is what set this manufacturing institution apart from its competition. The ability of this manufacturing institution to provide custom maintenance services for a variety of manufacturing systems, machines, and fixtures within an automobile production facility required a very skilled workforce with years of experience. This institution was chosen for this study based on its highly skilled workforce, relationship to a global enterprise, and its size.

Participant CA. Participant CA was the Operations Team Leader for an office of a multinational corporation located in the Midwest region. He had worked in the manufacturing sector since 1998. He received an associate's degree in Industrial Technology and joined Manufacturing Institution D as a Maintenance Technician. After working in a variety of positions at Manufacturing Institution D, he was promoted to the position of Operations Team Leader. This individual hired two skilled employees per month to work inside the large manufacturing facilities they maintained for other entities. This individual brought a great deal of experience hiring skilled manufacturing employees, as he was the only person in the study that solely hired skilled laborers. He did not hire for any other type of position. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the manufacturing facilities at two locations, demonstrated best practices, and provided documents for analysis.

Manufacturing Institution E

Manufacturing Institution E was a joint venture company established in 1996 and was recognized as a premier tier 1 and tier 2 supplier of interior components to the

automotive industry. This manufacturing institution understood customer needs, designing innovative, superior quality products through advanced manufacturing methods and focusing on continuous improvement. These traits had allowed this manufacturing institution to grow to an entity that had 11 locations in four states with total employment of over 4,000 employees and annual sales in excess of \$1 billion. Each facility within this manufacturing institution had obtained both ISO 9001 award status and ISO 14001 environmental certification. These designations relating to quality through customer satisfaction and environmental management provided a glimpse of the total commitment this institution made to all aspects of its business, from initial concept through customer service. This institution was chosen for this study based on its large, highly skilled workforce, and its reputation for quality performance within the industry.

Participant DN. Participant DN was the Human Resources Manager at Manufacturing Institution E. She was an experienced human resources professional who had worked in two different manufacturing facilities in the human resources field. She had been in her current position for seven years, held a bachelors degree in management and an MBA, and she regularly attended seminars and workshops with an interest in better hiring practices. She averaged hiring six skilled maintenance workers per month. This participant completed an interview, demonstrated best practices, gave a tour of the manufacturing facility, and provided documents for analysis.

Manufacturing Institution F

Manufacturing Institution F is a 30-year-old company that was recognized as an industry leader in the manufacture of transfer seat bases, which provide safe independent mobility for those who require the use of wheelchairs. Due to their emphasis on quality

improvement and safety they had grown to 25 employees with \$7 million in annual sales serving 400 dealers worldwide. Not only did they have an excellent safety record, but they were able to ship 100% of their orders within 24 hours. They were a member of the National Mobility Equipment Dealers Association, as well as being both Federal Motor Vehicles Safety Standards Certified and Canadian Motor Vehicle Safety Standards Certified. This institution was chosen for this study based on its industry leadership and attention to safety standards.

Participant JE. Participant JE was the president and co-owner of this small regional manufacturer. He made all the hiring and firing decisions in this manufacturing institution. He purchased the business in 2008 and had increased sales nearly 30% during very difficult market conditions. This required the hiring of skilled workers throughout the company as they sought to diversify their production mix. Prior to purchasing the company, he worked for one of the largest manufacturers in Illinois for 26 years. He was promoted to Sr. Vice President of Sales and Marketing after 18 years and to President of the company after 22 years. He earned a bachelor's degree in marketing prior to beginning his career in manufacturing. This participant met with the researcher on multiple occasions, completed an interview, gave a tour of the manufacturing facilities, demonstrated best practices, and provided documents for analysis.

Demographic Findings

The 12 participants in this study were also members of the Wabash Valley College Advisory Council that indicated that they had the authority to make hiring decisions and had experience in using an ePortfolio in the hiring process. Their authority to make hiring decisions came from the positions they held within an organization. It

was evident that the organizations within this study gave hiring authority to people of differing titles. Table 3 provides an overview of the participant titles and the discipline they represented.

Table 3

Summary of Participant Titles and Fields of Employment

Title	Nursing	Manufacturing	Total
President	0	2	2
Manager	3	1	4
Human Resources Mgr.	3	3	6
Total	6	6	12

Although the individuals held different titles, they each had the authority to either hire or make the recommendation for the hiring of an individual. The different titles that participants in the study held at the time of the interview could be grouped to include President (2), Manager (5), and Human Resources (5). The participants with the title of President interviewed in this study were the owners of small, regional manufacturing businesses. These businesses had human resource personnel and various managers, but all employment and termination decisions flowed through the President. None of the organizations used in the study of nursing positions even carried the title of President on their organizational chart. The positions grouped under manager included the titles of Group Leader (manufacturing), Nurse Recruiter (nursing), Contract Manager (nursing), and Care Manager (nursing). The common position group was that of human resources with slight variations in the titles within the Human Resources Department.

The titles included Director of Human Resources (manufacturing and nursing), Vice President of Human Resources (manufacturing), and Human Resources Specialist (manufacturing).

Within the manufacturing discipline, job candidates did not possess a single common licensure for human resource professionals to seek, but instead had vastly different specialties that they were seeking to marry to a position announcement. The study sought to interview participants from varying size manufacturing institutions to capture the differences in the use of the ePortfolio across the manufacturing sector. Manufacturing enterprises, though, were generally measured by sales volume on an annualized basis. Table 4 provides an overview of the varying sizes of the Manufacturing Institutions represented by the participants in this study.

Table 4

Size of Participant Employers (Manufacturing)

Type of Manufacturing	Sales	Locations	Start Date	# of Employees
Plastics	\$4 Billion	81 Locations Nationwide	1967	1,500 @ study location 26,000 Total
Electronics	\$3.7 Billion Euros	70 Locations Worldwide	1899	465 @ study location 25,000 Total
Corrugated	\$6 Million	Illinois	1993	26 @ study location
Automotive	\$1 Billion	17 Locations Service is Worldwide	1987	4,000 @ study location
Industrial Maintenance	\$2.5 Million	Worldwide	1984	163 @ study location 39,000 employed worldwide
Automotive	\$7 Million	Illinois	1981	25 @ study location

Among the manufacturing entities, there was not a delineation of skills needed by manufacturing facilities of varying size (the skills were generally a component of the position announcement), but the size of the entity had a much greater effect on the interview process. It is for that reason that human resource decisions made within the manufacturing segment reached the highest position titles (President) in some organizations. These were smaller employers (less than 100 employees) compared to the rest of the employers interviewed in the process.

Ultimately, the size of a manufacturing firm in this study was measured by sales. Many smaller organizations within the manufacturing sector did not have a Human Resources Department or that department's function was to collect timesheets and help with benefit processing. The larger organizations had significant resources with which to

handle much, if not all, of the hiring process within the organization. The study interviewed individuals that worked in various business sizes within the manufacturing sector in an effort to broaden the scope of the study and remove any biases that might exist regarding electronic portfolios because of the size of the organization.

For this study, classification of employment emphasis was based on the business segment focus for those entities within the nursing discipline, as there were obvious delineations in their target markets and subsequent skill sets needed by employees. The size of the entity did little to affect the hiring process in comparison to the variation in skill sets that were sought by entities seeking job candidates with the same nursing licensure. Table 5 outlines the size of the health care facilities used in this study and additionally includes the type of healthcare facility.

The size of a healthcare organization was measured not in annual sales or gross square footage or other common measures of company size because these measures did not necessarily denote the number of potential applicants an organization may handle in a given period of time. Healthcare facilities are regularly measured by the number of beds that can be occupied by patients and that same measure was used in this study. The two business sectors in this study provided differing perspectives from which to view the effectiveness of an electronic portfolio in the pre-employment screening process, but special emphasis was placed on interviewing human resource professionals from both large and small entities regardless of the business sector.

Table 5

Size of Participant Employers (Nursing)

Type of Provider	Beds	Locations	Start Date	# of Employees
Hospital	523	Indiana	1872	3,269
Geriatrics	123	Illinois	1908	360
Hospital	22	Illinois	2000	186
Penal System Health Care Provider	2026	Illinois	1995	570
Home Health	125	Illinois	1888	310
Hospital	365	Indiana	1893	600

Data Collection Process

Information was gathered from a variety of sources during the interviews and subsequent visits to the healthcare and manufacturing institutions. This information included nursing skills checklists (Appendix G), nursing patient charting requirements (Appendix H), nursing position announcements (Appendix K), manufacturing position announcements (Appendix L), job applications for the healthcare institutions in the study (Appendix I), job applications for manufacturing institutions in the study (Appendix J), healthcare internal communications (Appendix M), and manufacturing internal communications (Appendix N). Each participant in this study was interviewed and those interviews were recorded and transcribed. Appendix D has a copy of the confidentiality agreement used for the third party transcriptionist hired to transcribe the recorded interviews. The transcribed interviews were then given to the participants in the study so they could analyze the transcription, make changes where appropriate, or confirm the accuracy of the document. Lincoln and Guba (1985) noted that member checking is the

most critical technique for establishing credibility. A copy of the form used in the member checking process can be found in Appendix E. Once the participants had confirmed the accuracy of their transcribed interviews, I began to explore the data. This included a compilation of the field notes, documents obtained during the interviews, pictures taken during tours (where allowed), and the transcribed interviews. This began the process of making sense of the data through the use of codes and themes that labeled the content into categories that began to emerge. These codes and themes were compiled into tables within a spreadsheet to better organize, sort, and query the data. As the data were sorted and refined, a theoretical framework emerged for use in this study. It is this framework that housed the data for each of the research questions in this study.

Description of Findings

In this study the researcher explored the use of an electronic portfolio in the hiring process by both manufacturing and nursing employers. The collection of data through a semi-structured interview process was guided by the Grand Tour Question:

In what ways do interviewers from manufacturing and service sector employers use an ePortfolio in the evaluation of candidates for employment, and do those evaluations lend themselves to the development of a suggested template for an ePortfolio?

Research Questions

1. Are there advantages of an ePortfolio over that of traditional pre-employment screening processes?

2. Does the ePortfolio showcase the skills that a candidate possesses in comparison to the skills required on the job to provide authentication of these necessary skills?
3. Are ePortfolios of value to manufacturing and service sector employers in the assessment of an applicant's skill level during the hiring process?
4. Are there advantages of an ePortfolio over that of a text-based portfolio?
5. What information do employers of career and technical students find useful and expect in an ePortfolio?
6. Can a template be developed that will be perceived to provide authentication of workplace skills useful to hiring officials in various technical areas?

This chapter will report the findings in response to the research questions established to answer the Grand Tour Question.

Research Question 1. Are there advantages of an ePortfolio over that of traditional pre-employment screening processes?

Participants in the study noted that they were looking to see if the applicants had the experience necessary to be successful at the job for which the applicant had applied. In a comparison of a resume and an electronic portfolio, participants noted their frustrations with the resume and the purpose for which it was designed. I observed during the study, by analyzing the application form used by each institution located in Appendices I and J, that the participants readily used the resume in their initial screening process and felt comfortable with the role of the resume in that process. Additionally, they had strong feelings about the shortcomings inherent in the structure and use of a resume.

To combat the inability to differentiate applicants and skills, hiring managers have lengthened the process of assessing needed skills for jobs that are above entry level employment. Participant WT stated this pretty simply. “Well, unfortunately there’s not any way to tell [if an applicant is a good nurse] by looking at that piece of paper until you get them in and talk to them.” One participant stated that the perceived limitation on acceptable length of a resume by the applicant hinders the process even more. Participant CH noted,

Everyone tries to hold their resume to a single page and that is great when you are weeding through a pile of resumes in the first step of the process, but after you review all the resumes and determine which ones you want to call for interviews, the resume is not of much value after that. The rest of the time I am going to be looking at the personality of the person and their ability to do the job. The resume really does not answer either of those two questions. It may get your foot in the door, but that is it. I guess I do use it again if the person included their references on it.

Through this study, participants from the manufacturing sector and service sector decried the lack of information, the inability to validate skills, and the inaccuracies of resumes. Ultimately, participants in the study wanted to be better able to validate the skills and abilities of applicants at that point of initial contact/application and use that information as the person matriculated through the hiring process.

Initial screening. The initial application and resume gathering part of the process allows the human resource personnel to review an applicant on the basis of determining if the applicant meets the predetermined minimum requirements necessary to continue to the next step of the interview process. Participants spoke to the difficulty they have in judging the abilities of an applicant based on their application and resume. Participant JE noted that it requires him to do some testing from the onset to determine skill level. “It

usually requires us to do some internal testing or hands on activities with an applicant.”

Participant DN stated the difficulty she faces if the person does not have a portfolio.

If the person does not have a portfolio, like I mentioned before, we generally use a test to determine their knowledge about industrial applications. And based on their scores that has a lot to do with whether they get that position.

The process, as they saw it, predicates itself on concise information in order to narrow the candidate pool quickly without inundating the human resource office with paper. Participant CH reflected, “Everyone tries to hold their resume to a single page, and that is great when you are weeding through a pile of resumes to determine which ones you want to call for interviews.” While one of the benefits of this process proved to be the limited requirements placed on an applicant to apply for a position, these same limitations were causes of concern for participants. While the objective is to determine if the applicant might meet the minimum requirements of the job, the resume and application process just ask the applicant to state that they can do the job or indicate that they have done the job in the past.

Lack of information. Participant SB noted that the interview process was akin to a “guessing game” in the initial stages of the pre-employment screening process when using a resume. This is a function of the structure and purpose for which a resume was created. Participant JE explained that “It is ironic that everyone is taught to keep their resume to about a page. I would rather have lots of information up front and save time in the interview process by eliminating surprises.” Resumes are generally compiled to highlight career experience, education, and achievement, so that a candidate might be invited for an initial interview. This relegates the resume, in the mind of the applicant to a personal marketing flyer. This flyer is usually held to one page for quick reference.

Adding to the confusion is the fact that the applicant determines the format of the resume, highlighting components that are in the applicant's best interest while downplaying other items for similar gain. Some variations of these resume formats have garnered names such as professional resumes, chronological resumes, or even functional resumes. That just further reinforces the point that human resource professionals are at a disadvantage in comparing applicants based on a resume and having enough information to do so confidently. I noted that the conciseness of the resume appears to be a double-edged sword for both industries. Individuals tasked with hiring decisions like the conciseness of the resume as it relates to the space required for storage and the ease of use, but they also struggle with the lack of in-depth information provided by the applicant. Participants in the study expressed a continual disdain for the lack of depth resumes provide in assessing the skill level of an applicant. Six of the 12 participants directly expressed a desire for more information than what is provided in a typical resume. Participant CA denoted the frustration he experiences with the lack of information provided by a resume. "Just looking at a piece of paper, you do not know anything except what that piece of paper is telling you. You do not have anyone explaining anything to you, there's no way of knowing [you have a quality applicant]." SB added more information on what he wants to see submitted by an applicant.

It helps to see samples of work or to have the person explaining to you why they made the design changes they did. I think part of that comes from experience and looking at them, but it is a guessing game a lot of times.

Participant WT stated that all the resumes for a particular job start to look the same.

My frustration is that everyone tends to say the same thing. That does not help me differentiate the person on paper very quickly. It is easy to make a mistake and start putting people in the save stack because of frivolous things.

When participant CA was asked about the ability to determine an applicant's skill level using a resume he stated, "From a resume you cannot [determine their actual ability]." He went on to say, "You hire someone based on the details and a resume is not put together to give you details. It is merely a starting point." JE noted the lack of depth in a resume:

Depth of information. There are just a lot of unknowns when you make your initial judgment based on one page of information. It is ironic that everyone is taught to keep their resume to about a page. I would rather have lots of information up front and save time in the interview process by eliminating surprises.

Participant PM said, "Whenever you see a resume there's not much to it." Just as participant BN stated his need for "greater detail" as they see themselves making errors in the process of this first step and for a fear of overlooking the really good candidates in an applicant pool. CA was the most vocal about the lack of detail in a resume.

It is tough to just look at a resume and make a decision on whether to grant an interview. I worry all the time that I missed the best applicant by judging on the appearance of a resume when our work is not based on appearance. Just looking at a piece of paper, you do not know anything except what that piece of paper is telling you. You do not have anyone explaining anything to you, there's no way of knowing.

Participants in the study also discussed the costs associated with a search process and training associated with the hiring of a skilled position within their organization. This has created the expansion of the group that makes it through the first step and is invited to an initial interview in step two.

Initial interview. The second step in the hiring process for participants in this study tended to be a confirmation of the skills that the human resource manager or committee thought they saw in the initial review of an applicant's job application and resume and a movement toward delving into the personality of the applicant, in an attempt

to assess the applicant's soft skills, and whether or not they will work well within the organization. The lack of depth in the resume requires the human resource manager to work at confirming the skills that are listed on the resume as skills that the applicant possesses and whether he or she has the ability to do the job if hired. The need to validate an applicant's skill level at an early point in the process was clear in the study. While each institution used subject matter experts later in the hiring process, there is a fair amount of pressure on the human resource personnel, early on in the hiring process, to cluster as highly skilled an applicant pool as possible for future steps in the hiring process. Participant DN expressed her concern about the cost of using other people in the organization to confirm the skills of a large number of applicants. "Without the portfolio we have to pull someone from their daily duties to be involved in the interview process. This is a much less efficient use of personnel." Participant BN added that this was a tricky process of narrowing the field to limit the use of costly employees being involved in the hiring process.

Their ability to get past the industry specific lingo and determine ability through situational questions is very valuable in the process, but they do not like to get involved until we have narrowed the field to a handful of candidates. That's the tricky part that our subject matter experts are needed in the day to day operations here and for them to spend a great deal of time in human resources is not the best use of their time.

Participant CA was more concerned about the costs associated with making a poor decision in the hiring process. "We will invest significant time and resources in these individuals, and a short-term, skilled employee can be devastating to our operations." Participant SB referred to the costs associated with making a poor hiring decision as "messy".

We spend a lot of time determining if the applicant has the abilities to do the job. If we can see what their abilities are without hiring them on a temporary basis that would really make it easier and less messy if the person does not have the skills we are looking to find.

The brevity and bullet point style of a resume is a hindering aspect at this point and therefore a lot of time is spent reading between the lines and making assumptions. JE spoke to this ‘reading between the lines’ saying,

Again, proof is difficult. I have to make a lot of assumptions. Some of those [assumptions] are larger than others. I can generally prove the education and make some small assumptions about what they should know based on their education. I also can determine longevity or commitment by a resume by how long they worked with a company. I cannot really validate the skills that an applicant has based on their resume. Everyone that is worth their salt knows all the industry buzzwords for their line of work. They are going to use a lot of them in their resume and that makes things more difficult.

CH added,

Everyone tries to hold their resume to a single page and that is great when you are weeding through a pile of resumes in the first step of the process, but after you review all the resumes and determine which ones you want to call for interviews, the resume is not of much value after that.

SB called it a “fact finding mission” noting that there was “a lot of time [spent] determining if the applicant has the abilities to do the job.” There is a seemingly large jump from the objective of the human resource professional in confirming the skills that have been presented to them in the resume and application process and the work that is really being done to gather the necessary information that is not readily available to the human resource professional throughout the existing process. WT was frustrated by these assumptions, saying, “They assume that you know what skills they have by the degree or by the places that they have worked. It has been a guessing game like that in nursing for many, many years.” Several of those interviewed expressed a concern about

the guesswork that went into their decisions to interview or to not interview a candidate that had applied for a position. CA stated that it is a constant source of worry for him.

It is tough to just look at a resume and make a decision on whether to grant an interview. I worry all the time that I missed the best applicant by judging on the appearance of a resume when our work is not based on appearance.

The participants for the study readily talked about the difficulties they experienced using an application and resume in the initial screening process and the challenges it creates for the rest of their hiring processes as it related to the confirmation of tangible skills. Throughout the interviews, participants readily explained the challenges they face in discerning who to call for an initial interview and who they should remove from the pool for consideration. Emphasis was placed on not only the tangible skills that they needed to make sure the applicant had and was able to transfer to the employer, but also the soft skills that would determine if the candidate would work well with the existing workforce, suppliers, and customers of the organization. It was interesting to note during the interviews of the participants in the study as they discussed at length the need for soft skills in their employees, yet fully expect the confirmation of those soft skills to be during the interview process. Not one participant in the manufacturing or service sector mentioned the use of a resume or an application in authenticating the soft skills that they placed such great emphasis upon during their interview process. The only assumption that can be made from this lack of information is that the participants fully expect to use the interview process to confirm these necessary skills and that the participants in this study are comfortable relying on that part of the interview process to determine these soft skills.

One of the shortcomings of a resume CW noted was “determining if their skills match our requirements and the level of their soft skills like communication and being a team player are absent.” It is not that the resume process lacks communication, as the written form of a resume can provide a glimpse at the ability of an applicant to write correctly, completely, and concisely. Participant CH stated that one of the shortcomings of a resume is its lack of value after the initial screening process.

After you review all the resumes and determine which ones you want to call for interviews, the resume is not of much value after that. The rest of the time I am going to be looking at the personality of the person and their ability to do the job. The resume really does not answer either of those two questions. It may get your foot in the door, but that is it.

It is clear from the interviews that the participants placed a great amount of weight on the soft skills of the applicants. It appeared that the initial interview in the process for the larger companies in both the manufacturing and service sectors was geared toward addressing the area of soft skills. While most of the discussion by participants involved the idea of hiring technically proficient workers, the recognition by all participants of the value of soft skills was deemed equally important and equally challenging to ascertain through the use of a resume. Participant CW summarized the difficulty in ascertaining an applicant’s soft skills based on a resume. “It [resume] does not tell you about them as a person. Determining if their skills match our requirements and the level of their soft skills like communication and being a team player are absent.”

Research Question 2. Does the ePortfolio showcase the skills that a candidate possesses in comparison to the skills required on the job to provide authentication of these necessary skills?

It was not until what some of the participants referred to as the third step in the hiring process that the subject matter experts were brought into the hiring process to determine the level of tangible skill the applicant may or may not possess. I noted during the interview process that there was consistently a component of the initial interview that seeks to confirm the existence of a level of tangible skill to go along with the soft skills that the human resource manager is looking to find, but the human resource manager does not generally possess great knowledge in many of the subject areas for which they are hiring skilled workers. It is for that reason they are seeking to confirm that the items included on the resume and application are indeed skills held by the applicant.

Participant CH noted the benefits of having the necessary information early in the hiring process:

We have had numerous people submit paper and electronic portfolios to us over the last five plus years and it does not eliminate the third interview. It generally eliminates the first interview or second step in our process. That may not be a fair statement. I would say it combines the first and second steps in our process into one step.

Each of the participants in this study used internal, subject-matter experts during the hiring process. I noted in the research that it was the role of these subject matter experts to validate the claims made by the applicants that had matriculated through the initial stages of the selection process. The claims made by an applicant, whether made through the use of an ePortfolio or just part of the experience listed on an applicant's resume, must be investigated to determine their authenticity. Through the interview

process it was evident that the use of subject-matter experts was strictly for the confirmation of skills previously listed or exhibited and for the purpose of determining if an applicant might have the skills to do a specific job. Participant AM noted their process used at Institution A.

We do not make them take pre-employment tests. The reason behind that is the legality and it is costly. We do interviews and then we send them to nursing management and they screen the nurses for specific skills. They will ask about their skills and will know if they're making it up. It is at this level that an electronic portfolio saves our staff a lot of time.

Participant SB noted earlier, the goal at this point is not for this to be a fact finding mission, but just the opposite, this is a point where the company is expending valuable resources to confirm the applicant has the skills that they say they have. Even more than that, these subject-matter experts are working to confirm that the stated skills are transferable to the work that this individual will be doing in the future. Participant CH summarized this function within the manufacturing sector by saying:

No written test [is given], but we will test their skills if they make it to the third interview. We generally go through a series of interviews that are aimed at getting more and more focused on the skill level of the applicant as we go. The first level is just a review of the application that they completed. We are trying to determine if the person has any of the skills that we are requesting. From there we have a general interview to see if they are a fit with the company and to see if they can substantiate the claims that they made through their application packet. The third, and final interview, is one in which we have an area supervisor and a tech from that area participate in the interview process. If the candidate can orally substantiate the claims they have made through the first two steps then that interview usually leads to the applicant having the opportunity to show what they know with some kind of hands on challenge. These are not ever tricks or anything like that. The area supervisor generally has them work with someone in our process to see if they can substantiate what they say they know. The more technical the skill we are seeking the easier this process is.

As these companies pull people out of their normal supervisory role, pull technically skilled workers off the floor in the nursing rotation, or out of production for

the manufacturing segment to interject them in the hiring process, they are involving some of their highest paid labor in the hiring process. The cost associated with this process goes up dramatically at this point. It is little wonder that the subject-matter experts are not involved until the last step of the process. I noted that efficiency throughout the hiring process was a common concern, but the use of experts that could substantiate the claims made by candidates was essential in the hiring process.

Participant BN discussed the value the subject-matter experts brought to the hiring process and the costs associated with their participation.

It is the subject matter expert that separates the interview away from us deciding whether or not the individual is going to fit with our organization and if they can do the job in question. Their ability to get past the industry specific lingo and determine ability through situational questions is very valuable in the process, but they do not like to get involved until we have narrowed the field to a handful of candidates. That's the tricky part that our subject matter experts are needed in the day to day operations here and for them to spend a great deal of time in human resources is not the best use of their time.

The statement above lends a great deal of insight into the challenges these human resource managers face in the interview process. The resume and application process provides the human resource manager, and ultimately the subject matter expert(s) with only a list of what the candidate claims to have done or be able to do. Starting from that reference point for a candidate requires human resource personnel to assimilate the experience the applicant shows on a resume or application with the operations of the organization and reverse engineer the process to see if the candidate can use the experience and skills that they have listed to do the job in question. Participant JE stated that this is not an easy job. "I have to be careful of those people that are very qualified in other areas that we may want to see if those skills will transfer into the job we have."

Participant BN echoed those thoughts saying, "we are very interested in learning as much

as possible about their experience. This is generally a fairly difficult task when you really have no idea who the person is or the company for which they worked previously.” It is also necessary for the human resource manager and the subject matter experts to begin the process questioning the validity of all the claims that have been made by the candidate. They have no proof as to the validity of the claims made by each applicant, and thus their role is to confirm the statements are indeed true before moving forward into the integration of those skills into the job in question. That really is not an efficient method of selecting a candidate for employment. Participants in the study continually referenced the need to save time and money. participant SB referenced this in the ease the ePortfolio creates.

We spend a lot of time determining if the applicant has the abilities to do the job. If we can see what their abilities are without hiring them on a temporary basis that would really make it easier and less messy if the person does not have the skills we are looking to find.

Participant WT stated it this way. “They assume that you know what skills they have by the degree or by the places that they have worked. It has been a guessing game like that in nursing for many, many years.” It is this period of time that human resource professionals need to eliminate from the timetable. This time is spent filtering through the information to determine who makes it to the next interview, and it is time spent fact finding during the interview.

Inaccuracies. Many participants in the study also voiced their frustrations with the inaccuracy or misleading information that they perceive to be listed on a resume. None of the participants in this study felt applicants use their resume in such a way that they would be considered to be misrepresenting themselves, for applicants are aware that lying on their resume and application will lead to a quick termination if that information

is discovered at some point in the future (see Applications located in Appendices I and J for each of the institutions represented in this study). What participants did note was a perception that applicants were maximizing their chances for an initial interview by using language that would elicit the most positive response for the position being sought. Participants in the study recognized the objective of the applicant was to get an interview and also recognized their own role was to separate knowledge and ability from bluster. Participant JE does not give much credit to the detail contained in a resume. "It generally gives a very shallow depiction of the skills and abilities that an applicant might have. They are obviously going to work to highlight the positive and hide the negative in their attempt to get the job." Participant BN added,

It is not difficult to put forth a very glowing resume about yourself. We get way too many resumes that do not project an accurate picture of what the applicant can do or has done. Talk is cheap and industry lingo is thick on every resume.

Participant CH noted the challenges with jargon.

People are getting better at writing resumes or they have someone else write the resume for them. They tend to fill the page with all the applicable industry buzz words in hopes that they will make it through that first filter.

Participant CW noted that the resume does not always match the true applicant.

Some people are really good at preparing resumes or giving interviews, but you really do not know them until they are in a work situation. Everything in a resume seems to be fluffed for maximum effect when you read it. I have found way too many instances where the person on paper did not match the person that I interviewed.

Participant DN was a little bitter about the content she receives on resumes. "Basically, you have to take their word for it. They can write anything down and unless we investigate or check it out we have to take it to heart."

Participants within the study were critical of the traditional pre-employment screening process because of the lack of information they receive from a thin resume and application that many times is either full of inaccuracies or perceived to contain information that is intended to create the greatest positive effect on those reviewing the information. I noted that this lack of information and distrust in the information being submitted by applicants has affected every step of the pre-employment process for some of the participating in this study. According to SB the initial interview has become a “fact finding mission” because participants do not trust the information they have been given. A second interview is used by most of the participants to confirm or validate the skills that an applicant claims to possess. The participants in this study have turned to subject-matter experts within their own organizations to authenticate the skills of applicants that do not possess certification or licensure of their ability. This is a time consuming and costly process for companies and has created a fear that the best candidates might be overlooked. While the process had not changed in decades, the advent of greater technology has given many people in the human resources arena a taste for what is possible.

Advantages of ePortfolio. The time and effort required of human resource professionals in the hiring process was obviously a critical issue for companies in general, and more specifically, participants in this study. Significant emphasis was placed on the ability of the ePortfolio to differentiate candidates by authenticating skills in a timely fashion. For the participants in the study, this involved proving an applicant can do the job, providing access to more detailed information, and expediting the process by eliminating steps.

Participants in the study readily expressed the benefit the ePortfolio provided them in the assessment of the skills that they identified as essential in candidates they were looking to hire. Participant DN stated, [the ePortfolio] “allows me during the interview to spend time confirming what I think I know about their abilities and not just spending my time trying to gather enough information to determine what they may know.” Participants in the study, regardless of whether they were from the manufacturing sector or the service sector, wanted employees who were excellent communicators and who had great attitudes. The healthcare participants from the service sector were very specific in stating that they wanted employees who were passionate about their profession. Participant CW saw the value in the reflection that the designer of the ePortfolio must document. “It [ePortfolio] would also show me that they are passionate about what they do. They have taken the time to document many things that they could use to learn more about their own techniques and improve patient care.” Details regarding these specific skills and abilities participants were looking to find in applicants are provided in detail as the research seeks to answer research questions four and five.

Expediting the process. The participants in the study explained the benefits of an electronic portfolio in terms of the greater amount of information they were able to analyze in both technical and soft skills, the limitations of a resume and an application in the analysis of an applicant, and that it differentiates the applicant from amongst his or her peers. Participant CW boldly stated the value of the ePortfolio to her hiring process. “It is clear to me that the electronic portfolio gives me the best opportunity to authenticate the skills of an applicant without seeing them work on the floor.”

Participants in the study spoke about the opportunity to skip steps in their normal interview process because of the information contained within a portfolios. Participant CH spoke about moving directly to the interview stage if they have a portfolio. “If the person has a portfolio, we can generally move directly into an interview whereby we are assessing whether or not they have the people skills necessary for the job and if their tangible skills are transferrable to us.”

Each of the participants readily spoke of the benefits of the electronic portfolio and how they might use or guide someone in its creation. While each of the interviews showed that each employer might use the electronic portfolio in a slightly different way, or have specific items of interest as they look at an ePortfolio, it was evident in an objective measure that the ePortfolio holds value in the hiring process. Participant CH stated,

We have had numerous people submit paper and electronic portfolios to us over the last five plus years and it does not eliminate the third interview. It generally eliminates the first interview or second step in our process. That may not be a fair statement. I would say it combines the first and second steps in our process into one step. If the person has a portfolio we can generally move directly into an interview whereby we are assessing whether or not they have the people skills necessary for the job and if their tangible skills are transferrable to us.

Participants were clear in their assertion that the use of an electronic portfolio saves the staff time and leads to a stronger final interview. Nine of the 12 participants in the study directly indicated that the ePortfolio saved time. Every single participant in the manufacturing sector indicated that the ePortfolio saved time and half of the participants from the service sector stated the ePortfolio saved time.

Detailed information. Ultimately participants in the study noted that the portfolio allows those involved in the interview process to have more information up front and make decisions earlier in the process. Participant JE succinctly added,

It was one of the easiest searches I have ever had. I was looking for a product designer. I had a man apply for the job and simply sent me a copy of everything he had designed. I could quickly look at what it was that he had designed, what tolerances he was able to keep, size of objects, complexity, revisions to original designs and so on. I was prepared to have a paid work day for the top candidates and have them spend a day designing for me so that I could see if they could do it. I was so relieved to have someone just hand me their stuff [designs] and say here is what I can do.

Participant CW stated that the amount of information exhibited in an electronic portfolio was second only to seeing them work. “It is clear to me that the electronic portfolio gives me the best opportunity to authenticate the skills of an applicant without seeing them work on the floor.” When participant JC was asked if she would treat an applicant that submitted an ePortfolio differently she said, “I would have more information about them, the more information that they can provide, the more likely they will get a call back.” When participant PM was asked if he would treat a candidate with an ePortfolio differently his response was, “I believe the electronic portfolio would probably give you a better idea as to the applicant”. Participant AM said the department heads can review the ability of an applicant before the process ever begins. “That [ePortfolio] really allows our department heads to review a person’s abilities before they are interviewed. This makes for a much stronger final interview.” The amount of information applicants submit within their electronic portfolios was well noted by the participants in this study. Many of these participants openly stated that they treated candidates differently if they had an ePortfolio that was submitted in the pre-employment application process.

Research Question 3. Are ePortfolios of value to manufacturing and service sector employers in the assessment of an applicant's skill level during the hiring process?

One often associates the idea of value with saving money in a transaction. This was also the case with the individuals interviewed in this study. Nine of the 12 people interviewed for this study indicated that the ePortfolio saves staff time and ultimately money in the interview process. The other three participants had such a rigid structure to their process that the ePortfolio did not save time internally. Participants from the manufacturing entities were more apt to speak about the ePortfolio “saving steps” in the interview process or “expediting” the movement from application to final interview. Several participants spoke of the value the ePortfolio has long after the initial application because of its organizational structure as a repository for an applicant or employee's skills and abilities. This led participants to believe that they were better able to make an educated decision regarding the longevity of the future selections in their hiring process. Participant CH summarized this very succinctly:

We have had numerous people submit paper and electronic portfolios to us over the last five plus years and it does not eliminate the third interview. It generally eliminates the first interview or second step in our process. That may not be a fair statement. I would say it combines the first and second steps in our process into one step. If the person has a portfolio we can generally move directly into an interview whereby we are assessing whether or not they have the people skills necessary for the job and if their tangible skills are transferrable to us.

It appears from the research that saving time and thus saving money comes on two fronts. The first way in which participants noted the saving of time was in the confirmation of skills, and the second way in which participants noted that time was saved was in the length of time subject matter experts had to be involved in the hiring process.

Skipping steps was deemed valuable to each of these individuals seeking to fill a position as long as they were able to confirm the requisite information in fewer steps within the hiring process. That proved to be the advantage of an ePortfolio over that of the traditional pre-employment screening processes. It is also most desirable to the applicant if they know their chances of advancing to the second round of the hiring process increases because of their use of an ePortfolio.

Research Question 4. Are there advantages of an ePortfolio over that of a text-based portfolio?

Participants in the study focused much of their discussion on the lack of information and the inability to determine the skill level of an applicant using traditional pre-employment screening processes. These statements were illustrated in Research Questions 1, 2, and 3. Therefore, participants were observed to welcome the use of the portfolio in whatever form it was offered. Participants had seen and used both the paper and electronic portfolios in the past and recognized the value of the electronic portfolio over that of the text-based portfolio, as was noted by participant CW. “It is clear to me that the electronic portfolio gives me the best opportunity to authenticate the skills of an applicant without seeing them work on the floor.” The preference for the use of the electronic version of the portfolio took on three major themes in the research. Participants thought that the ePortfolio was more sophisticated, more convenient, and allowed them to see the applicant demonstrate required skills.

Participants in this study were impressed with the ePortfolio. They spoke of the ePortfolio in very positive terms, often alluding to the fact that they would give preference to candidates that submitted an electronic portfolio. When participants were asked if they

would treat a candidate differently who had an electronic portfolio they repeatedly stated that they would treat them differently. Participant AM stated she would even tout the merits of an applicant that used an ePortfolio in the application process.

Yes [I would treat them differently]. I would probably make comments to the director like, “wow, take a look at this.” I would also anticipate that the cursory questions in an interview could be omitted, and we could spend more time asking questions that would better aid in the understanding of the critical thinking ability of the person.

Participant SS stated her approval of the electronic portfolio saying, “I would be very impressed.” Participant CA simply stated that he treats candidates with an ePortfolio differently. “Definitely [I would treat them differently]. Those people appear to me to be willing to put in the extra work.” Participant SB thought a person with an ePortfolio provided a long-term benefit to the company during the hiring process.

I think they would have an advantage. We spend a lot of time determining if the applicant has the abilities to do the job. If we can see what their abilities are without hiring them on a temporary basis that would really make it easier and less messy if the person does not have the skills we are looking to find.

Participant JE attributed personality traits to the use of an ePortfolio.

From a perception standpoint, I would think that they were more prepared and better organized than the other applicants. It would eliminate their chances of getting quickly put in the ‘no’ category because they would get more of my time.

Participants in this study struggled with this seemingly biased opinion of the ePortfolio they held. Participant DN provided a good example of this bias when she discusses treating an applicant differently.

I think possibly [I would treat them differently], I mean just for the simple fact that there’s more information there and you would have to take a little more time to review it, but they have obviously taken more time to create something like that as opposed to someone who just brought in a resume. Again, I think it shows good initiative if they did something like that. If the person has provided a good showcase of their skills then many times that person ends up skipping a step in the

interview process and moves directly to meetings with supervisors of departments.

Another participant made the assumption that the electronic portfolio was time consuming to construct for an applicant. Participant AM treated applicants with an electronic portfolio differently because she thought they were willing to work a little harder. “This [ePortfolio] takes extra work so if you find an applicant that has gone to the extra work they would be a step ahead.”

Participant BN recognized the convenience of the electronic portfolio over the text-based portfolio. “I think I would be more impressed with someone that gave me something I could conveniently use.” I noted in my research that participants referenced text-based portfolios that they had seen in the past, but not a single participant from the nursing or manufacturing sectors had a text-based portfolio in their possession or that they could obtain regarding a previous job applicant. Participants indicated the text-based portfolios usually remained in the possession of the person who created it and was using it to apply for positions with multiple institutions. The text-based portfolio is time consuming to create and is not easily duplicated. Leaving such a large work with someone else during the interview process would not be prudent. Participants CH, BN, and SB noted that the text-based portfolio had only been used during the initial interview in their experience. It was not a part of the pre-employment screening process used to determine if an applicant should receive an interview. In contrast, participants were observed referencing electronic portfolios on their computers as they would point their web browser to the appropriate website to provide an example of an ePortfolio they had evaluated. The web address of electronic portfolios was also demonstrated by participants in this study as hyperlinks on resumes. These resumes simply had a line item

dedicated to their electronic portfolio or listed it as their personal website. The human resource offices at these various manufacturing entities and healthcare providers demonstrated the areas within their electronic applications that applicants had used in the past to enter their web address directly on the application. Applications for each of the institutions represented by the participants in this study can be examined in Appendices I and J. Participants also confirmed that a mini disk or flash drive attached to the application and resume would not be removed from the packet if they were submitted together and would be an acceptable way to present an electronic portfolio when applying for a position. Participant BN specifically referenced the benefit a tangible electronic portfolio would have for the applicant and the human resource professional saying, “If I had the ability to hand something over to one of our subject matter experts the timetable for hiring someone just got cut in half.”

The most common response by participants in the study regarding the advantages of the electronic portfolio pertained to the ability of the human resource personnel or subject matter experts to visually confirm the skills of an applicant. As participants in the study search for a skilled workforce, they have specific requirements in the job description that correspond to particular skills or skill sets. Determining if the applicant has the specific skill to do the job in question is the major component of the pre-employment screening process. Participant CW stated, “They have to show that they have the experience to do the job we are advertising for.” Participant CA noted that “ultimately they have to prove that they can do the job.” Participant SB recognized the value of ePortfolios in the pre-employment screening process when he said, “Electronic portfolios have helped in this area over the last few years. Applicants that bring in

examples of their work and can explain their decision making rationale have taken a lot of the guesswork out of the hiring process.” Participant DN noted that applicants exhibiting requisite skills in a portfolio are easy to move to the next level of the hiring process. “Applicants that have provided ePortfolios showing the types of robots like 2-axis, 3-axis, and 6-axis that they have worked with and programmed have been the easiest to move through our hiring system.”

Participant CH added,

A CNC operator could say they run CNC equipment or they could show me the types of things they have run in the past. Going a step farther, that same person could show me the code they generated to run the machine, a 3D model of what was run and materials checklist on what it took to make the piece. That would give me a good idea that the person knows what they are doing.

The decision making process for participants was enhanced by being able to see the applicant perform skills. Participant WT recognized the value in discerning an applicant’s communication skills. “I am interested in seeing their communication and teaching skills with the patients and family.” Participant JC noted the desire to actually see the applicant perform specific tasks saying, “If I could see them actually complete many of the tasks we have discussed that would be the best case scenario.” The method by which participants have become accustomed to seeing applicants exhibit skills through an electronic portfolio is through the use of video. The video segments have proven useful to them in ascertaining an applicant’s ability. Participant WT outlined the types of videos she would like included in an ePortfolio.

I would like a video that shows them teaching a patient how to change a dressing or how a family member is to lift a patient once they are home. That list could go on forever. I just cannot see on paper how they read the person to determine if they are understanding what is being said. Did they demonstrate the technique and then watch the patient perform it. On and on.

Participant DN noted the difference between seeing the typical components that might be compiled in a text-based portfolio and the added depth an ePortfolio provides through the use of video.

I liked more visual types of components. It is important for me to see the AutoCAD type drawings and changes in blueprint/design type stuff. I do like video when it shows something in operation, but I also want to see the code used to make the operation take place.

Ultimately, the participants had to reach a level of comfort confirming an applicant has the requisite skills to do the job. For many participants, this does not happen at the application stage of the pre-employment screening process, and the text-based portfolio does not aid the human resource professional in this endeavor as participant CW so clearly articulated.

I do not know that I could get comfortable with a way to determine if they can teach our patients through a paper only process. The electronic portfolio would give me the ability to see them teaching patients and other staff specific care guidelines and that would be great. I could critique their teaching methods and the tools they used to teach with. I am assuming that they could use video for that.

Research Question 5. What information do employers of career and technical students find useful and expect in an ePortfolio?

The research analyzed two distinct groups of human resource professionals in this study. The purpose of this was to draw on the similarities and differences that might exist in a service sector enterprise and that of a manufacturing sector enterprise. While there were many similarities in what participants want in an electronic portfolio, there were also many differences that must be noted. The two sectors that were analyzed had vast differences in their operations, yet both sectors sought to hire applicants with experience, excellent communication skills, the ability to think critically, who can

provide proof of educational background, and who can authenticate job-related skills. From the research, the major difference between these two groups is how they ascertained the categories they deemed necessary in determining the best applicant. It will be those differences that will be most apparent in the development of ePortfolio templates for the nursing and manufacturing disciplines.

Themes. As I explored the field notes, the documents I obtained, the pictures taken during tours, the position announcements gathered during visits with participants, the job applications provided by participants, and the transcribed interview notes, two overarching themes became evident. Participants, regardless whether they were from the healthcare or manufacturing sector, wanted proof that an applicant had the technical skills to do the job, but they also wanted proof that the applicant was a good ‘fit’ within the organization. It was apparent through the coding process that two main themes emerged and from which all the sub-themes should be grouped. These two main themes were soft skills and tangible skills.

The soft skills theme is composed of skills that allow an employer to determine if the applicant will be a good employee and ‘fit’ well in the organization. This theme encompasses those characteristics participants within the study indicated they would like an applicant to prove, but for which there are no specific, tangible artifacts that are directly attributable to evaluate. In contrast, the tangible skills theme is composed of specific skills that require the applicant’s inclusion of directly attributable artifacts showing proof of a skill an employer can objectively evaluate.

The research into the pre-employment information nursing and manufacturing employers find useful and expect in an ePortfolio (Research Question 6) delineated sub-

themes under the main themes of soft skills and tangible skills. These sub-themes emerged through the coding process as the artifacts participants would like to evaluate for proof of a skill or ability were grouped. The soft skills human resource professionals sought to validate within the hiring process to determine if an applicant would ‘fit’ well within an organizations were the same for both the healthcare and manufacturing participants. The soft skills sub-themes for the nursing and manufacturing disciplines are as follows:

- About me
- Experience
- Communication

Under each of these sub-themes, the soft skills participants sought to confirm were grouped for placement in the suggested template for the electronic portfolio.

The research showed that human resource professionals sought to validate an applicant’s technical ability with specific, directly attributable artifacts. These tangible skills artifacts were directly related to the qualifications listed in the position announcement. While some of the tangible skills sub-themes are interrelated, the research showed a clear separation of the items required to prove the necessary skill level of an applicant in these two very divergent industries. The tangible skills sub-themes developed for the nursing discipline are as follows:

- Care Plans
- Teaching Sample
- Transcript/Licensure
- Skills Video

- Clinical Hours

The tangible skills sub-themes developed for the manufacturing discipline are as follows:

- Skill Set
- Decision Making
- Problem Solving
- Certificates & Licenses
- Transcript

The findings from the research are reported according to the themes and sub-themes that emerged from the coding. The findings are reported by discipline, with the nursing soft skills theme and underlying sub-themes presented first, followed by the nursing tangible skills theme and underlying sub-themes. Likewise, the manufacturing soft skills theme and underlying sub-themes are presented first, followed by the manufacturing tangible skills theme and underlying sub-themes. It will be these themes and sub-themes that will form the template for the nursing ePortfolio and the template for the manufacturing ePortfolio.

ePortfolio components for nursing. The research on the components participants find useful in an electronic portfolio for nursing clearly called for a delineation of soft skills and technical skills that the participants found necessary to be included. While many of the elements are interrelated, the research showed a clear separation of those items that are inherent characteristics of the applicant and for which there are no directly attributable artifacts like there are for the tangible skills of an applicant that demand specific artifacts for proof of skill. The components participants

within the study indicated they would like an applicant to prove, but for which there are no specific, tangible artifacts that are directly attributable to evaluate were categorized as soft skills and those components for which there was a specific, tangible artifact showing proof of a skill were categorized as tangible skills.

Soft skills for nursing. The soft skills sub-themes aggregated from participants in the healthcare sector encompassed those items participants indicated they would like to see, but for which there are no tangible artifacts that were directly attributable to these sub-themes. These sub-themes are subjective in nature and provide the creator of the ePortfolio some latitude in determining what artifacts might be included as measures of their capacity to demonstrate the necessary skills within any particular soft skill sub-theme.

Experience. All six healthcare participants mentioned experience as a key characteristic they were actively looking to find in an applicant. Experience, to these participants, was clearly a working knowledge of the various departments so that they had a wide skill set with varied experiences in a medical setting. Healthcare Institution F provided a copy of the nursing skills checklist used in the evaluation of an applicant. This checklist, located in Appendix G, required the documentation of the clinical hours of an applicant. Additionally, each institution provided a copy of the application used by the healthcare institution they represented (Appendix I), and each of these employment applications included sections requiring detailed information about the nursing experience of an applicant. Participant CW described a need for applicants to show experience within many areas of a hospital or medical setting. “What types of experiences they have gotten in their healthcare related jobs. Have they gotten ER, ICU,

surgical, geriatric, pediatric, OB, doctor's office . . . etc.” Now, these same participants were quick to point out that they made sure an applicant had experience within the area for which they had posted a job and did not hire candidates that had broader experience as a nurse but no experience in the department for which the position announcement was created. Participant CW gave a hypothetical example about hiring experience.

It really gives you a good sense about what skills they have or bring to the job. It is hard to hire a nurse for an ER job if they have no ER experience. That is not to say that we cannot train someone, but it is just a lot easier to integrate someone that is familiar with the pace of an ER than someone that has only worked in the care of geriatric patients.

While that ER experience is critical in this hypothetical case, the emphasis is on the ability of the person to work at the pace of an emergency room. This further emphasizes the subjective nature of the experience section and need for the inclusion of more than just a listing of positions an applicant may have previously held.

The experience component was not a search for targeted experience within a specific medical field or department. It also did not target years of experience. With many job descriptions that are posted, the experience component generally lists a number of years of experience that the employer is seeking. That was not the case with the participants within this study. Appendix K lists position announcements for nurses in healthcare institutions in this study. Although the participants were looking for the wide, varied experience to come from within one organization and not be a compilation of short-term jobs with different employers, the position announcement may state that they are looking for three to five years of experience. In reality, they are looking for three to five years of single-employer employment and a wide range of hands-on experience. PM

combined these two components of the experience element well by describing an ideal candidate,

Her job history, she was at Carle Hospital or Carle Clinic for eight or nine years, she graduated from a community college, she has her Associate Degree in Nursing, and she's worked there since she graduated, she did not job hunt, she worked in the emergency department, then went to ICU and back to the emergency department, so she had a lot of experience with critical care and emergency care and [in] those two areas of nursing you get a lot of experience.

Participant WT noted the importance of longevity when ascertaining an applicant's experience.

We would like to see their work history. It would not be good to see someone work a year here and half a year there, you know if they worked like five years in one place and then moved on. If they have hospital experience or nursing home experience and take the time to delineate where they worked within the facility.

That same thought process was echoed over and over again in this study as documents and field notes were reviewed. Longevity was perceived to be a component of ability.

Participant SS thought years of service was an indicator of quality. "The longevity, if they have been there a while apparently they are doing something right. I do not think a nursing supervisor would keep someone if they were not able to do the [job] skills."

While many people may not have several years of experience, staying power within their job appears to be associated with the ability to do the job in the nursing field. Each of the healthcare institutions showcased awards, discussed ratings and touted their patient satisfaction ratings. These satisfaction surveys, their annual evaluations, and patient testimonials provide the owner of an ePortfolio many artifacts to showcase positive work experience across disciplines.

Communication. Communicating clearly was an element that each healthcare participant stressed. The nursing profession requires workers to be exact in their

communication and leaves no room for error. People's lives are dependent on the communication of those who are attending to them. The majority of this communication is written communication. Some of that information comes in the form of the charting that is done by the nurse and can be written or electronic. I observed computerized workstations between patient rooms that were dedicated to charting at the larger hospitals and the use of paper worksheets for patient charting at the smaller healthcare institutions. Examples of these paper charts are contained in Appendix H. One of the larger healthcare institutions included reporting as an item on their skills checklist used to grade the ability of an applicant. This skills checklist for Institution F can be found in Appendix G. Ultimately, these employers were making decisions about the ability of an applicant to communicate clearly based on the information that was submitted to them. Participant AM placed a lot of emphasis on the quality of communication an applicant provides her.

By the appearance of it, if they have good writing skills and if they have completed everything. My biggest pet peeve is when we ask for them to list their experience and they put at the top of an application "see resume" even though we have listed on the application if you submit a resume you still have to fill this out. Right there I want to throw the application out.

Participant CW provides just a little different twist on what is communicated by an applicant with an electronic portfolio. "I am very impressed when someone would send me a portfolio. I would be even more impressed by an electronic portfolio."

Participant AM said that one evaluation method used to determine if an applicant is a quality applicant is aesthetically based. "To me it's appearance, how much time they took in filling out the application, and their attention to detail in their resume or portfolio; to me that shows me who that person is, if they're thorough."

This soft skills section of the ePortfolio deals with those items that are not specific, tangible artifacts that participants wanted to see, but rather those elements that are interwoven into everything that defines the person applying for the position. The ability to communicate clearly, completely, and as a team member as a nurse was a common theme noted by the participants in this study. Participant CW recognized the importance of communication as he said, “a nurse should be able to communicate well in written and spoken language.” This sub-theme really has two components that are part of the tangible skills section, displayed as artifacts. Those components were the inclusion of care plans and teaching samples. These components are much more focused on the written communication brought forth through the care plans and the verbal communication in a teaching sample. Because these components refer to specific tangible artifacts, they are further discussed in that section of the findings.

The appearance of the information that was submitted during the application was noted by four of the six healthcare applicants as being important. Participant AM mentioned that, “Attention to detail in their resume or portfolio; to me that shows me who that person is, if they’re thorough.” While it is important to each of the participants that the application communicate information without creating errors that cause distraction and potential confusion, it was also a means by which the participants were judging the applicant’s ability to do the job based on non-verbal behaviors. From a perception standpoint, the following participants noted that the use of an electronic portfolio gave them indicators of the following characteristics of an applicant:

Characteristic	Participant
Hygiene	WT
Passion	CW
Thoroughness	AM
Attention to detail	JC

Communicating completely was an element that derived from the frustration healthcare participants felt with the brevity of the resume process. Within the ePortfolio, these same participants noted the ability to expand information to show a completeness of communication that was not evident in the traditional resume and application. The examples of the ability to communicate clearly can be exhibited in the tangible skills that can be added to the ePortfolio in the form of care plans and teaching samples. Participant AM referenced her need to, “take a long look at your communication skills through care plans and reports.” Being afforded the opportunity to review these documents or visually see the applicant completing a process allowed the human resource manager the opportunity to make a better determination of the applicant’s interpersonal skills in this area.

About me. Participants in the study were interested in the behavioral aspects of the applicants they were screening. The comments that spoke to the personality of the applicant were compiled into the original spreadsheet to analyze common characteristics the participants desired in an applicant. From the analysis, it was evident the participants in this study were interested in understanding more about the applicant in terms of them being a team player, their goals, and their desire to work within healthcare and the specific organization to which they applied.

The dynamics that surround a nurse in any of the settings for which these healthcare participants work is ever changing and requires an ability to work with others. The position announcements (Appendix K) used by Healthcare Institution A and Healthcare Institution D specifically use the term “collaboration” as a qualification for an applicant. Participant PM mentioned the importance of the working relationships within an organization saying, “Interpersonal communication, how they work with staff members, because the key to nursing is how they work with others.” The modes of communication are expanding greatly and some nurses are having a hard time keeping up with the changes in technology that allow them to provide greater service to their patients. Nurses that are unable to complete the communication tasks while they work are placing a greater burden on their coworkers. This component is very difficult to analyze using a traditional resume and application, but it was interesting to note that the skills checklist for Healthcare Institution B in Appendix G has a section relating to attendance, and the job applications for Healthcare Institution B and Healthcare Institution F, located in Appendix I, both request information on attendance at previous places of employment. This is the area where human resource managers are looking for a “best fit” within their organization. Does the applicant have the ability to not only get along with his or her coworkers, but to make them better? The participants linked this teamwork component to the soft skill of communication through the need for the greatest possible efficiency in the communication process. It was noted that this is one of the components that is missing in the initial processes of the traditional hiring practices as CW said, “the level of their soft skills like communication and being a team player are absent.”

One of the most discussed themes by the healthcare participants in this study pertained to the need for an applicant to demonstrate goals. The emphasis was on determining what the applicant wanted to accomplish in the nursing field both personally and professionally and how the applicant's experience and education mirrored the mission/vision of the healthcare institution. JC wanted to know what motivates an applicant. "We're also looking for their personal reasons of wanting to be a nurse." The discipline of nursing is one that has many different areas of work. In this study, participants hired nurses for employment in home health, prisons, geriatric facilities, physicians offices, and large hospitals with positions in emergency room settings, operating room settings, intensive care units, obstetrics and general patient care. Each of these areas has differing mission statements and requires differing skill sets, but they also require a general passion for the field of nursing. WT combined these thoughts saying, "I am interested in why they want to be a nurse, why they are interested in geriatric nursing, and what experience they have gained over the past years." Determining why the applicant wanted to work for a specific organization when the options in a high-demand field are so plentiful was a critical element for participants in the study.

With such varied positions, it is important to find those individuals who truly want to work in the nursing position being advertised and are not just looking for employment as a nurse. It was for that reason that the ability to determine the goals of an applicant within the nursing field was paramount for the participants in this study. They also wanted to see how the applicant was working toward those goals or had accomplished their previous goals. Participant CW wanted to know what their goals were, but wanted some proof that they were accomplishing those goals.

It has to be someone that comes in and you can tell if they are excited about their profession. We get some applicants that have worked 20 years and they do not seem excited anymore. I want employees that are chasing their passion. Why [do] they want to be a nurse, what position, what their goals for the future are, I would tell them to actually write about their personal experiences or have other people and patients give testimonials about the care they give.

Nurses are faced with setting goals for their patients every day in an effort to get that patient to the point he or she can be self sufficient. For participants in this study, it was necessary to see if the applicant was able to provide this type of leadership for their patients by demonstrating how they have done it in their own lives. Were they able to define their goals, determine a time frame, and develop a plan of action? These components were so much more important to the participants in this study than just a statement of objective on a resume. The ability of an applicant to assess patient accomplishments was being judged by their ability to do the same for themselves. Participant AM saw the process as one that envelops the entire person as she said she would like to see “their school, their future plans, where they see themselves in five or ten years, the possible direction they are heading, their goals and from a nursing standpoint we want to know what they have done.” These are not objective measures or tangible artifacts, but provide insight into how the applicant’s goals and values mirror the mission of the entity to which they have applied. I noted the mission statement of the institution was readily visible in multiple locations throughout many of the facilities and patient goals and satisfaction charts could be seen at nursing stations, break rooms, and locker areas.

Tangible skills for nursing. The tangible skills section of the nursing template included those artifacts capable of demonstrating a skill or ability by the owner or creator of the ePortfolio. As participant interviews and documents obtained from the

representative institutions were analyzed, several components emerged as specific artifacts participants would like to see included in an ePortfolio to provide authentication of workplace skills useful in the hiring of nurses. Healthcare Institution B even went as far as to require an applicant to sign a statement acknowledging the ability to perform the job on the application. Healthcare Institution C asks applicants to list requisite skills on the job application. These job applications can be reviewed in Appendix I. The tangible artifacts participants were interested in authenticating were patient care plans, teaching samples, transcripts, skills videos, and a listing of clinical hours.

Patient care plans. Patient care plans, SOAP (subjective, objective, assessment, and plan) notes, and patient assessment plans are all terms that were used interchangeably by healthcare participants in this study as they discussed the written plan that follows a patient through their medical treatment process. These plans are critical communication pieces that keep all medical professionals, who might be treating a specific patient, moving in a concerted effort toward a specific goal. These plans will stay with a patient throughout the treatment process and will even be reviewed during future follow-up visits. While the information must be clear, it must also be concise enough to allow all care givers to quickly review it.

Five of the six healthcare participants mentioned “patient care plans” or “soap notes” as being an essential element that they would like to see in an ePortfolio. These nursing care plans are recognized as an important part of providing quality patient care and were important enough that Healthcare Institution F listed it on the skills checklist (Appendix G) used to assess nurses. Additionally, Healthcare Institution D spoke to the coordination of patient care plans as part of the job description in the position

announcement located in Appendix K. The patient's care plan defines the role that the nurse will play in the treatment of the patient. This information will follow the patient, not the nurse, as there is the potential for multiple medical professionals using the information to provide patient treatment. Participant AM was clear that she thought nursing managers would like to see the inclusion of this information earlier, rather than working to prove an applicant's skills at the end of the process. "Nurse managers like to see the care plans." Ultimately, the applicant is going to have to prove that they can plan and assess patients that are under their care.

The ability to think critically through the analysis of information that the nurse is assessing is what the participants in this study were seeking to determine by evaluating their writing. It is for that reason that participant WT wanted to see samples of these patient care plans. "They need to demonstrate appropriate assessment of the patient and prove that they can clearly and concisely write appurtenant stuff." These care plans are the backbone to the daily tasks of nurses. They can possess the skills necessary to do the job, but they must have the critical thinking skills necessary to work in an ever-changing environment. Participant CW discussed the necessity of being able to see that they were able to tailor treatment to the needs of the patient when she said, "I would like to see several samples of written nursing care plans so I can see that they are able to think critically about different patients and develop interventions that are tailored to the patient." The ability to develop excellent patient care plans is a learned skill that takes experience. Participant SS noted that not all nurses provide the same documentation.

We have a skilled section which would be your subjective/objective patient assessment. [It is] another area that is important is the documentation. There are some nurses that their documentation is horrible and some nurses you do not even know the patient and read the documentation and you know what's going on.

This section of the ePortfolio not only allows the applicant to demonstrate their ability to fulfill a patient task, but it also allows them to demonstrate their ability to communicate and think critically.

Teaching sample. The desire for a candidate to have the ability to teach was a surprise theme in this study. Five of the six healthcare participants in this study mentioned the ability to be a good teacher as a characteristic they were looking to find in an applicant. Additionally, Healthcare Institution F listed it on their nursing skills checklist in Appendix G, and Healthcare Institution A and Healthcare Institution D listed teaching as a requirement in the position announcements located in Appendix K. Participants in this study were clearly searching for applicants who would provide the best patient care in today's medical setting. I observed charts in employee access areas at Healthcare Institutions A, C, and D that compared patient survey results to other healthcare institutions in the same geographic area. Participant AM proudly showcased the classrooms they have on campus for educational opportunities of staff and patients as she provided a tour of Healthcare Institution C. Patient care has shifted to place greater responsibility on patients to care for themselves outside of a medical facility. It is for that reason that greater emphasis was placed on the nursing community to work with patients on caring for themselves. In the soft skills section, "communication" was a recommended component of the ePortfolio as it provides a picture of the ability of an applicant to communicate clearly in written and oral communication. The ability to communicate clearly and effectively is also a component of the teaching sample, but in this section a tangible artifact is necessary. While in the soft skills section of the ePortfolio, a compilation of written and spoken communication could be used as an example of the

communication skills being exhibited, this section is specifically tied to artifacts that demonstrate teaching. Participant WT stated, “I am interested in seeing their communication and teaching skills with the patients and family.” The inclusion of artifacts that show patient and nurse interaction as the nurse is teaching proper care techniques were necessary inclusions in the template. It was for this reason the inclusion of video was imperative. Participants in this study wanted to literally see the applicant teaching. Participant WT went on to say that a nurse has to be a good teacher and clinician and that traditional employment screening does not allow her to determine the applicant’s ability to teach.

A nurse has to be a good teacher as well as clinician. I do not think many people realize that to be the case. As a nurse works with a patient they are carrying out the care plan for that patient. They have to be able to read the patient responses both verbally and non-verbally and have to align their discussion with the patient to show the patient what they must or must not do in order to recover. That can be the most difficult part of being a nurse. It is also the most difficult part of hiring a nurse. How do I know from a resume that they are a good listener and teacher? I do not.

This teaching sample needs to be a video-based artifact. Participants in the study were clear in their desire to “see” an applicant teach patients, family members, colleagues and stated that they would like to review a “video” of the applicant teaching. Participant WT was the most adamant about the need to review video footage of an applicant.

I would like a video that shows them teaching a patient how to change a dressing or how a family member is to lift a patient once they are home. That list could go on forever. I just cannot see on paper how they read the person to determine if they are understanding what is being said. Did they demonstrate the technique and then watch the patient perform it. On and on.

Participant CW has never received video components within an electronic portfolio, but was clear in her desire to review those elements in an electronic format.

I do not know that I could get comfortable with a way to determine if they can teach our patients through a paper-only process. The electronic portfolio would give me the ability to see them teaching patients and other staff specific care guidelines and that would be great. I could critique their teaching methods and the tools they used to teach with. I am assuming that they could use video for that.

It was difficult to determine the underlying components necessary to include within the ePortfolio section that would be called a 'Teaching Sample'. Participant JC mentioned that the ability to thoroughly explain any task can provide evidence of teaching ability.

I also know that if they can explain the task thoroughly enough to me they are most likely a good teacher. If I could see them actually complete many of the tasks we have discussed that would be the best case scenario.

The emphasis was on the interaction and not necessarily the components of a good teaching plan. This differentiates the teaching sample from the patient care plan section. While the care plan has the components of what is to be done with the patient, the teaching sample provides the human resource professional the opportunity to see the implementation.

Participants specified three groups they would like to see involved in teaching samples. These three groups included patients, family members of patients, and classmates/colleagues. These three groups provide a diverse collection from which to include samples, but they also allow the participants to see examples of nurses teaching those individuals they would be involved with teaching on a daily basis. Participant WT was one of those in the healthcare sector that spoke to the breadth of students a nurse would have to teach. "I would like a video that shows them teaching a patient how to change a dressing or how a family member is to lift a patient once they are home." Participant CW added, "The electronic portfolio would give me the ability to see them

teaching patients and other staff specific care guidelines and that would be great. I could critique their teaching methods and the tools they used to teach with.” I observed teaching components that included patients, and continuing education of employees during tours of each of the facilities except Facility E. In these facilities, teaching was observed in individual rooms, in training rooms for patients, in training rooms for staff, and even on the televisions in the waiting rooms and patient rooms.

Transcript. Through this research, it was noted that not a single one of the healthcare participants referenced the general term of “education” during the interview process. It is assumed in this study that the licensure, certifications, and designations that correspond to each degree attained by a nurse limits the need for a generic educational category. The nursing profession requires licensure at the state level for employment. Each application for employment listed in Appendix I asks for licensure information. In addition, the education of nurses is very structured. This gives specific educational labels to a nurse as they attain designations for each degree. A licensed nurse without an associate degree is an LPN (Licensed Practical Nurse). A licensed, registered nurse with an associate degree is an ADN (Associate Degree Nurse). A licensed, registered nurse with a bachelor degree is a BSN (Bachelor of Science in Nursing). A licensed, registered nurse with a master degree is an MSN (Master of Science in Nursing). Within each degree, a nurse can achieve special training and obtain certifications or licensure in other areas, but the core educational path is used by everyone in the field, and as such the educational designations provide guidelines for ease of recognition of the educational attainment of someone in the nursing field.

Five of the six healthcare participants in this study indicated a desire to see the transcript of an applicant. Healthcare Institution A also stated in the position announcement that the education had to be from an accredited school (Appendix K). As participant CW stated, “You know where they have gone to school, but you do not know how long they went, whether it was part time or full time, what their grades were.” It was noted that participants were interested in determining what kind of student the applicant was and continued to be. Participant JC recognized that the applicant had the licensure to be a nurse, but they were seeking information about how good of a student the nurse was and if that applicant had continued his/her education beyond their current designation.

The transcript has been a blessing. A lot of people do not submit that – an official transcript with their resume - and we have to actually ask for one anyhow, but to have that transcript has been great. At that point I can see how good of a student they were and if they have continued their education.

Lifelong learning through continuing education was a common thread within the medical community as was evidenced by the annual continuing education requirements for medical professionals. The participants in this study were aware of the need to hire people with not only the aptitude, but also those who exhibited a desire to continually strive to provide better patient care through greater knowledge. The transcript, once again, helps provide this proof of continuing education that many times lead to certifications within the healthcare field. Certifications involve advanced education in a particular area of nursing. The certifications require sitting for an exam and thus some physical proof that the holder of the certification has the required knowledge. To maintain these certifications, a nurse is usually required to annually complete continuing education hours in that field.

Skills video. Each of the healthcare participants in this study indicated they like to see applicants actually perform tasks that they would be required to do in their job.

Participant PM recognized the value in determining an applicant's tangible skills through the use of an ePortfolio saying, "I would like to see them actually doing things. It would show me their skills." Participant CW stated that the ePortfolio provides the best opportunity to validate an applicant's skills.

If I could see them actually complete many of the tasks we have discussed that would be the best case scenario. It is clear to me that the electronic portfolio gives me the best opportunity to authenticate the skills of an applicant without seeing them work on the floor.

While each of the participants had a desire to see video footage, or have the video available for nurse managers to use, they recognized the potential difficulty in providing these artifacts with the privacy issues that are required by law. Participants still recognized the ability to shoot these videos without capturing the patient's face or by editing the video so the patient could not be identified.

While a few of the participants were quick to note that it would be impossible for an applicant to demonstrate all necessary skills in an ePortfolio, a few of the participants gave specific skills that they would like to see demonstrated. Participant AM listed several tasks she had seen head nurses want to authenticate. "Head nurses in each area would find it beneficial to see them accurately demonstrate tasks such as administering drugs, suctioning, maintaining a sterile field, and infusion therapy." Participant JC was interested in an applicant providing examples of "IV's, giving meds, reading prescriptions, even a daily routine." The skills checklist provided by participant SS included an emphasis on administering drugs, suctioning, maintaining a sterile field, and infusion therapy that she liked to see in an ePortfolio. This checklist can be found in

Appendix G. This provided a fairly short list of skills from the research. This list is not exhaustive, but coupled with the emphasis on the teaching samples, created a good skills sample that can be reviewed prior to an interview by a nurse manager in the hiring process. Ultimately, this is a list of skills that could be used to determine if an applicant had the skills necessary to receive an interview.

Clinical hours. Each of the participants in the study was sensitive to the desires applicants had for the department within which they wanted to work in the healthcare field. It was previously noted that participants wanted to know more about the goals and future plans of an applicant. These goals in combination with the experience an applicant can document through clinical hours provided the foundation by which a person might be placed within a specific department. Participants noted the benefits of a resume in providing employment information. Many times this information provided details about departments and work skills they may have gained through past employment, but Participant WT liked the objectivity of the clinical hours as it moved aside the employer and focused specifically on the experience that the applicant had obtained.

The number of [clinical] hours would be nice if it was a breakout of their experience as a whole. I would like to see what they have spent their time doing as opposed to just where it is that they worked.

Participants demonstrated their interest in the ‘experience’ section of the resumes they viewed. While a resume generally included items that were more work history than experience, I noted that participants in this study used the words ‘experience’ and ‘work history’ interchangeably. Within the field of healthcare, and specifically the nursing profession, experience was measured in the number of hours a person had practiced within a given department or clinical setting. Participant CW provided a good link

between the use of the generic term ‘experience’ and the measure of experience for nurses. “They have to show that they have the experience to do the job we are advertising for. I would like to see documentation of the number of clinical hours they have logged in various areas.” The Healthcare Institution represented by Participant CW (Healthcare Institution C) also requires documentation of clinical hours on the skills checklist (Appendix G). Participant JC noted the ability to recognize a quality applicant by their clinical hours, “relating back to their experiences, especially their clinicals. They can look good on paper, but when we talk to them in a professional manner it can be a different story.” When asked what elements should be included in an ePortfolio, participant PM stated,

Their clinical experience, and anything they do outside of the classroom because that’s where you’re going to find nurses. You really need that clinical experience, whether it’s in critical care, med surg, emergency -- those are the areas that people really look for.

Without listing the clinical hours, the human resource professional is left to make assumptions about the experience an applicant gained at a given place of employment. This became clear as participant AM began to talk about their perceptions regarding working in smaller hospitals.

from a nursing standpoint they want to know what [the applicant has] done – clinicals, the facilities they have worked in, and the things they have done in their clinical rotations, because if you’re in a small community hospital you’re not going to do as much and see as much as if you’re in a [larger] hospital.

Healthcare participants in this study recognized their need for more information in the pre-employment screening process. They were adamant about the desire to know more about the person that was applying for the job. This included information that was both easily defined and explicit and that which was easily defined and difficult to specify.

Once again, those items that were specifically delineated by the healthcare participants in this study were classified under the tangible skills theme. Those components that were difficult to specify were classified under the soft skills theme.

The healthcare participants sought to use the electronic portfolio to confirm soft skills that told the human resource professional more about the applicant's goals, character, experience, and oral and written communication skills. As participants in the study stated, these skills can be exhibited in a myriad of unspecified ways through the use of an electronic portfolio. Additionally, these healthcare participants were interested in using the electronic portfolio to confirm the tangible skills that an applicant possessed to meet the qualifications of the job. The data showed that healthcare participants were interested in reviewing the care plans, teaching samples, transcripts, clinical hours, and possible skills videos exhibited by an applicant. The research gave specific examples of these artifacts that should be included in the ePortfolio of an applicant seeking employment as a nurse.

ePortfolio components for manufacturing. The research on the components participants found useful in an electronic portfolio delineated the two themes of soft skills and tangible skills as interviews of human resource professionals in the manufacturing and service sector were analyzed. Manufacturing participants clearly called for a delineation of soft skills and technical skills the participants found necessary to be included. While many of the elements are interrelated, the research showed a clear separation of those items that are components of the personality traits of the applicant and the skill level of the applicant. The components that are interwoven into everything that

defines an applicant were categorized as soft skills and those that required the inclusion of specific artifacts showing direct proof of a skill were categorized as tangible skills.

Four sub-themes were developed under the tangible skills category for manufacturing employers: proof of job related skills, decision making process, certifications/licenses, and problem solving skills. Four sub-themes were developed under the soft skills category: experience, education, character, and communication. Each of these sub-themes are presented in greater detail under the main themes.

Soft skills for manufacturing. The soft skills sub-themes aggregated from participants in the manufacturing sector encompass those items participants indicated they would like to see, but for which there were no specific, tangible artifacts that were directly attributable to the sub-themes. These sub-themes are subjective in nature and provide the creator of the ePortfolio some latitude in determining what artifacts they might include as measures of their capacity to demonstrate the necessary skills within any particular soft skill sub-theme.

Experience. The term “experience” was used by each of the participants in this study. While each of the participants may place greater emphasis on their rationale for the necessity of experience in an applicant, it should be noted that the term was one that was used by each of the participants. Each of the participants was quick to state experience as an important attribute of an applicant. Participant DN stated it pretty succinctly saying, “Experience is a big thing.” It was necessary though to determine what they were looking to find inside the context of experience that was important for the development of a template. Three components emerged from the participant interviews: (a) experience is a function of stability, (b) familiarity with the manufacturing process

requires experience, and (c) experience comes through the production life cycle.

Participants in this study noted that they look to confirm the existence of these three components in an initial applicant. It was therefore necessary to speak to these sub-themes within the context of the experience of an individual.

Participants in the study were interested in the stability of their workforce. Employee turnover was costly and consumed a great deal of their time. Therefore, hiring individuals that will be long-term employees was deemed critical. These skilled employees may have the basic skills to do the job in question or have the knowledge to apply to the manufacturing process, but they have to apply what they know to what is many times a new manufacturing process, equipment, or product. That required investing in training for the skilled workforce at a manufacturing facility. Human resource managers were trying to keep turnover to a minimum in an effort to retain their human capital investment. Participant CA specifically noted the problems with hiring individuals that do not exhibit stability in their previous employment:

We look at the history of employment and the type of work they have done. We are looking to find those individuals that have had stable employment. We will invest significant time and resources in these individuals and a short-term, skilled employee can be devastating to our operations.

Manufacturing products and processes differed according to manufacturing facilities. As such, the positions and titles of employees involved in the manufacturing process varied among facilities. I recognized on my tours of these facilities that the organizations had a great many titles and positions on their shop floor. These varying positions had differing responsibilities within the manufacturing process. It was usually a function of time that was required for new employees to grasp the process by which the product was manufactured. Participant JE recognized that the movement of an individual

within a manufacturing facility was a key component of the experience he was looking to find in an applicant.

I look directly at the experience hoping that they have been specific in the skills that they have acquired in their work history. If the person has worked through different positions within an organization is important in determining what they know about manufacturing.

Skilled employees are necessary in many of the decision-making processes that accompany a product's life cycle. Participants in this study noted the need to have employees who have experienced the changes that come over time with a product. As products move through a production life cycle, changes in the product and the processes that created the product were excellent learning tools for employees. Participant CH discussed the importance of a person experiencing the changes in production at different levels in an organization.

Sometimes you get applicants that have worked three months at this place and three months at this place – they just do not have good work experience. They probably do not have the ability to overcome obstacles within a work environment very well and their lack of time at any one place is going to preclude them from being able to give me many examples of something they have worked on from start to finish. They have probably had a hand in the production of something, but have never had input at each interval. That type of experience only comes with time.

About me. Participants in the study were interested in the behavioral aspects of the applicants they were screening. The comments that spoke to the personality of the applicant were compiled into the original spreadsheet to analyze common characteristics the participants desired in an applicant. From the analysis, it was evident the participants in this study were interested in understanding more about the applicant in terms of their character, attendance, initiative, and volunteer work.

Four of the six participants noted that the first set of soft skills they looked to find in an individual would be classified under the category of character. Each of the participants in the study spoke to differing components that would fall under the sub-theme of character. Those components included attendance, responsibility, initiative, and volunteer work. While no participant in the study spoke directly to each of the components of the sub-theme for character, the template for the ePortfolio should include each of the components.

Attendance was a critical element for manufacturing participants in this study. Skilled laborers are not replaceable on days they miss work. The position also is not one that can go unfilled on a daily basis. I noted on tours of manufacturing institutions B, D, and E the inclusion of supervisors in the manufacturing process due to employees absenteeism. A position announcement from Manufacturing Institution A, located in Appendix L, even made mention of the attendance requirements of the position because someone from another area of the facility was required to accomplish the tasks of the absent person. This was a large enough issue that participant DN stated it was one of the first things they sought to determine. “The first thing we look for is a person’s character. Will they show up on time and are they responsible.” Participant JE noted that attendance information is something not readily supplied through traditional pre-employment screening processes, and it is also something that affects the other workers within the organization.

Attendance is one of those lack of information issues. I may be able to get that information from their last employer, but nobody includes that information in a resume. For me employee morale hinges on the attendance of other employees. Nobody wants to do two people’s work on a regular basis.

Similarly, CA noted that they worked within a team concept. There are team leaders and team members that share in the responsibilities of their area. This group, or team, functioned as a cohesive unit, and this placed a lot of pressure on individuals within the team to do their job. “We cannot jeopardize our teams by hiring someone that may be the most skilled individual but is not dependable on a daily basis. We are better off to have an individual with fewer skills and greater reliability.”

Four of the six participants in the study referenced passion or initiative as characteristics they were seeking in applicants. Manufacturing Institution E included the terms ‘attitude’ and ‘desire to learn’ in their position announcement (Appendix L). I noted that the two terms were used interchangeably by participants even though they have vastly different meaning. I therefore inferred that the participants saw a correlation between the terms. If they have an applicant who exhibits a passion for the work he/she is more likely to take greater initiative. Participants noted that it was difficult to determine if someone had a passion for what they did. Participant SB said the resume made that even more difficult. “It is hard to determine if an applicant has a passion for what he or she does from a resume.” Participant CH stated that they saw the ePortfolio as a sign that an applicant takes pride in what he does.

I think the first thing you look for is the time and effort that they spent on the item they have submitted. I do not hire a lot of creative type people. On the contrary, most of the people I hire are electronic technicians and engineers. These are generally A-typical people. I still want to see that they dot their I’s and cross their t’s. I want something to look neat and look like it took some effort. I want hard working people that do not create problems for others by creating messes that someone else has to figure out. Obviously a portfolio gives me the impression that the applicant has spent significant time on the development compilation of this information. It also tells me that they like what they do. They have done things and liked them enough to save them, photograph them and most importantly tell the story of them. You can really tell a person that loves what they do when they start to show you a project they worked on and it sounds like

they are telling a story to you about one of their children as you look at the pictures. That is what I am looking for . . . the little gleam in their eye.

Participant DN had a similar comment about the initiative it took to develop an ePortfolio saying, “they have obviously taken more time to create something like that as opposed to someone who just brought in a resume. Again, I think it shows good initiative if they did something like that.” The concept of initiative for the participants in this study was demonstrated in how information was conveyed to the recipient and not what information was being given. For that reason, no specific artifacts were mentioned by participants that could be included, but it should be noted that the way each artifact is presented will be judged to see how much pride was taken in compiling the information.

Participant CH noted the correlation of detail and passion:

The pride that they take in what they have done. That can be seen in the detail with which a person showcases the object. It does not matter if it is something very simple or rocket science. Their passion will show in the detail they provide.

The template will not specifically list initiative as a component of character, but it should be noted that participants recognized the development of an ePortfolio as initiative.

Additionally this component of initiative can be exhibited throughout the ePortfolio through the design and selection of artifacts a person selects to exhibit.

Volunteer work was important to three of the six participants in the study as a measure of character. Volunteer work was seen by the participants as a sign of commitment to an organization or cause. The manufacturing participants recognized that what an applicant was willing to do for intrinsic value was larger than the specific organization or cause to which they had volunteered. Applying that same reasoning to the organization to which the individual made application, participant BN thought they might see a similar basis for the motivation behind doing their best work.

On the other side of the spectrum, I would like to see why they do what they do or an example of a challenge they have met. If they can put [include] a letter about their volunteer work or pictures from it that would go a long way toward showing me how they are motivated and what causes them to put forth their greatest effort.

Participant SB wanted to see what it was that might make an applicant sacrifice for someone else or to do something with selfless motives. “I want to see a person’s volunteer work. How much volunteer work they do and why they do it. Having employees that are willing to serve others is always going to be a plus for our organization.”

Participant JE recognized a correlation between the volunteers within his organization for projects and those who volunteer with outside agencies.

I want employees to see that others are more important than themselves. I look at their references or reference letters for people that are vouching for the applicant’s character. Did they do volunteer work? Are they willing to work hard just because they want to be there or want to be involved in the project? It seems that this is where you find your volunteers for test projects within the organization. These people would work whether or not you paid them. They want to be involved.

Education. Five of the six manufacturing participants in the study mentioned education, degree, or transcripts as elements they like to see or confirm in the pre-employment screening process. Participant SB stated that educational attainment would be a determinant in the hiring process. It was often the first thing participants would seek to determine about an applicant. “First of all, the level of education is important, what qualifies them educationally.” Similarly, Participant JE wants to see their educational history. “I like to see a degree or a history of continuous self improvement. Ideally [I would like] both of those.” Participant DN emphasized the need to show educational attainment as they seek higher level positions or have aspirations to be

promoted. “An Associate’s Degree if it’s for management [positions] would help them move through the pre-employment screening process.”

Two of the six participants requested transcripts be included in the ePortfolio. If transcripts are to be included in the ePortfolio, it is recommended that those items be included as artifacts and not just referenced pieces in the soft skills section. Participant CA noted his desire to ‘see’ the transcript. “I would like a copy of their transcript to see what classes they took.” Participant BN placed significant emphasis on the transcript in the determination of the ability of an applicant.

If we are looking for a skilled individual then it becomes important to actually see the transcript and take a look at the courses and programs of study that the person may have taken. In my experience a person may have listed a degree that meets the qualifications that we advertised, but may have a lower level degree that is a better match for what we are needing the person to do.

The manufacturing field includes employees with a myriad of different degrees. Ultimately, it was imperative for the human resource professional to find the applicant that has the specific skill-set the position required. This may not be degree specific, and an applicant might have taken elective classes that meet the position announcement requirements. I observed internal postings for position vacancies at manufacturing institutions A, D, and E highlighting this need for specific educational requirements.

Communication. The manufacturing sector places great emphasis on the communication within a facility. Each of the participants referenced the need to evaluate the ability of an applicant’s communication. The audience for which participants judge the communication of an applicant is internal in nature. They were most concerned with a skilled employee’s ability to convey information to other employees within the organization and not to external stakeholders. Three of the participants in the study

placed a greater emphasis on the oral communication of an applicant, while three of the participants placed a greater emphasis on the written communication of an applicant. It was therefore necessary for the template to include both the oral and written components that someone within the manufacturing sector might want to see in order to make an accurate assessment of the communication skills of an applicant.

Written communication within a manufacturing facility can be perceived to be vastly different than communication in other organizations. I observed a vast array of pictures and diagrams posted throughout the manufacturing institutions in this study. Samples of these communications are attached in Appendix N. These methods of communication were used to communicate with various shifts of workers throughout the plant. Participants discussed the importance of communication within their manufacturing process being clear and concise with the emphasis being the structure of what was to be communicated and not necessarily grammatically correct sentence structure. Participant DN explained the use of graphical troubleshooting charts.

We provide reports on all troubleshooting or changes that's done on our equipment or product to each area manager. These reports are simple in concept and would be easy for someone to put into a portfolio. The reports are a series of digital pictures placed in a word document that points to the problem and the solution in a series of pictures. Very little is written because our workforce is comprised of people that speak different languages. This is of course a very common practice in the automotive field.

This simple and concise communication provides important information that can be posted anywhere within the facility. I was able to view many examples of this communication technique during the interview process and subsequent tours of the facilities. Most of these graphical communications were composed of digital color pictures that had arrows pointing to a specific component and just a word or two with

each picture. Participant CA, who also worked within the automotive industry, further explained the necessity of communication that was predominately graphically oriented.

The ability to clearly communicate a change or an idea across multiple shifts of workers and to multiple classifications of workers requires an ability to know the process well enough that you can anticipate the questions, answer those questions and provide an example of what the finished product will look like after the change. These are not grammatically correct memos. These are directions like you might get when you start to assemble an item you recently purchased. These charts are printed on large paper and posted for the people that might be impacted by the changes to review them.

Communication within a production facility is not as easy as it is within other types of organizations. Many organizations have multiple ways in which employees can communicate with one another. Within a production facility, the production team and many of the supervisors do not have access to many of the technological means by which workers in other industries communicate. These workers do not have cell phones or computers, on their person or at their work stations, for sending and receiving information. Communication, therefore, requires clarity at all points.

Accuracy is a critical element that runs through each of the requirements participants gave for the presentation of written information. This accuracy is a factor in all components of the ePortfolio process as an applicant compiles artifacts or information. While it appears beneficial for an applicant to include communication that includes schematics and directions, it is also necessary to recognize the weight that is given to all aspects of an applicant's written communication within the ePortfolio. Manufacturing Institution B represented by participant CH included in all position announcements the importance of written communication. A sample of a position announcement from Manufacturing Institution B is included in Appendix L. Participant CH emphasized the necessity of exhibiting clear grammatical communication within the ePortfolio saying,

I still want to see that they dot their i's and cross their t's. I want something to look neat, be clearly understood and look like it took some effort. I want hard-working people that do not create problems for others by creating messes that someone else has to figure out. Those types of messes cost tens of thousands of dollars.

Samples of oral communication were requested by three of the six manufacturing participants in the study. In this study, the participants that were more apt to hire skilled employees for supervisory or design work that required time in the office and less time on the production floor were the ones who put a greater emphasis on oral communication. It is assumed that participants in this study who placed a greater emphasis on oral communication anticipated these individuals spending a greater amount of time in meetings that require better oral communication. Participant SB gave a detailed example of the oral communication he would like included in an ePortfolio.

[The] third thing I would click on would be just to hear them talk, hear them converse, hear how he converses over a subject matter or something, 'hey this is the project I completed during...' 'This is why I chose to do this.....' 'These are some modifications I made after' 'I wrote the code for the program this way because of' ultimately this person is going to have to sell these ideas to others within the organization. We do not work within a static environment. Changes are inevitable and they will have to be implemented.

Similarly participant JE stated that he can learn a lot about an applicant by hearing them talk and following their logical progression of information as they talk about something. "I like to have them explain why they made a decision they made in the design of something. This gives me a better understanding of how they think and if they will work well with our other employees." Participant BN was interested in seeing an applicant lead a group exercise or give a presentation to a group to get a better feel for the excitement the person has for what they do.

From the Human Resources standpoint, I like people that you can tell they like the field that they have chosen, so somehow I have got to see that. If it's a person

leading a group in a problem solving exercise or just an extra bit of creativity in a presentation.

It was worth noting that this participant felt he had to see the excitement. It was not a characteristic that could be accomplished in writing or through another artifact in the ePortfolio.

Tangible skills for manufacturing. The tangible skills section of the template for the manufacturing ePortfolio included those artifacts that were able to demonstrate a specific skill or ability of the creator of the ePortfolio. As the participant interviews and the documents obtained from the participants were analyzed, several sub-themes emerged for specific artifacts that they would like to see in an ePortfolio that provided authentication of workplace skills useful in the hiring of skilled workers in the manufacturing field. Those tangible skills were the inclusion of evidence of job-related skills, decision-making process, transcripts, problem solving and a listing of certifications or licenses.

The tangible skills within the manufacturing sector were artifacts of varying depth and substance. Two of the sub-themes that were developed from the interviews were difficult to conceptualize as artifacts. They were really the thought processes of an applicant. Those two sections were the decision-making process and problem-solving process sections. These two sections were intertwined with the experience and communication sections within the soft skills section and were a large component of the proof of job-related skills, but as participants discussed these components, they spoke specifically of the need to understand the decision-making process and problem-solving ability of an applicant. The participants in the study also spoke of specific artifacts that could help to give them insight into the decision-making processes and problem-solving

ability of an applicant. It was therefore necessary to include these themes as stand-alone components in the ePortfolio template.

Proof of job-related skill. This section of the manufacturing ePortfolio template should be simply titled ‘Skills.’ Each of the six participants in the study requested a skills section that would allow them to see samples of work-related items that provided proof the applicant had the requisite skills to do the job in question. Each of the manufacturing institutions had space dedicated on their job applications for applicants to list specific skills they thought applicable to the job for which they were applying. The applications for each of the manufacturing institutions are located in Appendix J. Participant CA stated the obvious in saying, “Ultimately, they have to prove that they can do the job.” Participant SB recognized the value of ePortfolios in the pre-employment screening process when he said, “Portfolios have helped in this area over the last few years. Applicants who bring in examples of their work and can explain their decision-making rationale have taken a lot of the guesswork out of the hiring process.” Participant DN noted that applicants exhibiting requisite skills in a portfolio are easy to move to the next level of the hiring process. “Applicants that have provided portfolios showing the types of robots like 2-axis, 3-axis, and 6-axis that they have worked with and programmed have been the easiest to move through our hiring system.” Participant CH took this a step farther:

A CNC operator could say they run CNC equipment or they could show me the types of things they have run in the past. Going a step farther that same person could show me the code they generated to run the machine, a 3D model of what was run and materials checklist on what it took to make the piece. That would give me a good idea that the person knows what they are doing.

Participants in this study sought to assess the abilities and knowledge of the applicant by analyzing artifacts. The artifacts of the projects need to include detailed supporting documentation that would allow someone to make a judgment about their relevant skills and ability. From the research, it was evident the participants were skeptical about claims made on a resume or application and spent time trying to confirm the validity of the claim. Participant DN stated, “It is important that we determine if the person can really do those things, or if they have simply copied them from the position announcement.” When analyzing an ePortfolio, participants in this study assumed an artifact in the ePortfolio to be wholly the product of the applicant. The ePortfolio provides detailed information regarding artifacts that have been included and this allows for greater analysis.

I liked more visual types of components. It is important for me to see the AutoCAD type drawings and changes in blueprint/design type stuff. I do like video when it shows something in operation, but I also want to see the code used to make the operation take place.

Participant BN also recognized the value in reviewing the supporting documentation for an artifact. “If they can give you examples that you can see of their work and even more specifically if they can provide supporting documentation like computer codes or schematics you can really dig into the person’s abilities and knowledge.” Participant JE spoke of these examples needing to be very thorough and include commentary by the creator of the artifact to go along with the underlying documentation.

These examples need to be very thorough. It is not enough to just show a bunch of pictures. The applicant needs to be able to provide some background information on the object, what problem was solved, how they made changes over time, how they assessed its performance after the concept was adopted. What

where the failures? What did they learn from the failures? They need to recreate the story of the item they are depicting.

Participant CH added,

Examples and commentary would be the two things I want [an applicant] to remember to include. I really like to see the final projects that are on display in a portfolio, but in an employee I need to see how they got to that point. Nobody is perfect and I want to see what processes they went through to get to the final product. I would like to know what they like and dislike about the final product. What would they change knowing what they know now. The commentary is what gives me a feel for whether or not they can take what they know and apply it to what I need them to do.

Participant CA went on to say,

It helps to see samples of work or to have the person explaining to you why they made the design changes they did. At that point I want to know what they did and how many decisions they made in the process. Were they instrumental in the setup and programming/troubleshooting? Do they have the code that they wrote? Why did they make some of the decisions they made? I want them to explain to me or show me how they did something at a previous job or in school. Obviously, the more detail they can give me about it the better off we both are.

Participant SB was the only individual to discuss the use of video in providing detailed documentation of the artifact. It should be noted that the other participants did not exclude the use of video in providing commentary, nor did they state that the commentary needed to be written. For the purpose of this template, the commentary could be provided in either way. The creator of the ePortfolio should look at the other interrelated areas, especially the soft skills area and determine what components need to be included that may not exist thus far in the ePortfolio.

Problem solving. Each of the participants in the study spoke of the need for an applicant to exhibit problem-solving skills or referred to these skills as troubleshooting. This, again, is a thought-process skill that is being attached as a specific artifact. All six of the participants mentioned a need for an applicant to exhibit this skill. Manufacturing

Institution A and Manufacturing Institution B specifically listed problem solving as a qualification for employment in position announcements located in Appendix L, and Manufacturing Institution A included a box for an applicant to check on the job application if they had problem-solving skills (Appendix J). The skill might very well be a component within another area of an applicant's ePortfolio, which will not necessarily be true for every ePortfolio as an applicant chooses artifacts for inclusion. Additionally, with all six participants referring to the need to find proof of this skill in an applicant, it is imperative that this be a category that is included within the template even if the creator of the ePortfolio uses the same artifact in multiple sub-themed sections.

Participants in the study were interested in analyzing the thought process of applicants to see how they assimilate information and to see what experience they had in overcoming challenges. Many times challenges in an organization require a person to be resourceful and flexible, and these terms were used by participants in the study.

Participant BN stated the need to see the thought-process of an applicant to determine their ability to complete a specific job.

I like the pictures that gave me an idea as to what that person has worked on, but even more important, is their ability to demonstrate the thought processes behind why they did what they did or created what they did. Can they show me resourcefulness or flexibility through the process?

I noted during my tour with CH of Manufacturing Institution B that individuals within a manufacturing facility were often called upon to complete tasks with incomplete information. This requires them to break down the process in question into manageable steps before beginning the process of solving the problem. Once the problem had been located, it required a person to apply reasoning to select the best potential solutions to fix the situation. Participant BN spoke of the need to be able to analyze why they thought

they chose the best potential solution for a given problem. “We really have to get inside their head and see how they think, what their problem solving ability is and how they see things. That generally requires some troubleshooting work if they do not have examples for us.” Another participant noted how difficult it is to judge problem solving-skills without artifacts, “It helps to see samples of their work or to have the person explaining to you why they made the design changes they did.”

When speaking with CA it was noted that troubleshooting was a component of a wide range of skills and not a specialization.

I would like a variety of skills showcased. I am always looking for someone that has a wide range of knowledge as opposed to someone that is very specialized. Those are the people that can troubleshoot situations that come up every day in a production facility.

Certifications and licenses. While only two of the six participants spoke directly to the topic of certifications and licenses, each of the other four participants pointed to current or recently filled position announcements they had used that included references to certification or licensing needs. I noted the required licensure/certificates on job postings in Manufacturing Institutions A, D, and E. It was assumed in the research that the references by each of the participants in the section titled “proof of job related skills” also spoke to this area of the template as proof of an applicant’s ability and could easily be accomplished by the inclusion of a license or certificate. Certifications and licenses are also very easy artifacts to include in an ePortfolio. While these same credentials could be listed on a resume or an application, the ePortfolio allowed the human resource professional to make copies of the licensure for their files or retain the certificates in electronic form for future use. This feature of an ePortfolio allowed for instant proof of

the certificate or license, which was not a feature of traditional pre-employment screening processes.

Certifications and licenses within the manufacturing sector were usually collected by individuals and organizations. It was necessary for an organization to have employees that were certified to do specific jobs. A few such jobs that were observed at the entities within this study were electrical, plumbing, OSHA, HVAC, chemical application, chemical disposal and welding. Some of these certifications and licenses are harder to obtain than others. Those harder to obtain licenses were more sought after by companies needing employees with them. Participant CA noted that the greater the number of certifications an applicant holds, the greater the chance of employment.

The best applicants are those that come to us with multiple skills. That we can certify for jobs throughout the organization. The person who can prove that they have a great deal of knowledge and experience in multiple manufacturing areas is an asset. We will find a job for someone like that even if they do not exactly match the job description we have posted. The three big classifications for us are HVAC, Electrical and Fabrication. Under each of these areas, we hang all the job descriptions. If a person has certification to work in more than one of these areas they are the best possible candidate. (I-M-CA)

Participant JE stated that proving the quality of an applicant is difficult without items such as certifications and licenses. “I cannot really validate the skills that an applicant has based on their resume. It does help if they can provide certifications that they have obtained. These are pretty good indicators of the skills an individual may bring with them.”

Manufacturing participants in this study recognized their need for more information in the pre-employment screening process. They sought to hire applicants with a variety of skills that were difficult to measure, but required greater depth of information in the pre-employment screening process. This included information that

was both easily defined and explicit and that which was easily defined and difficult to specify. Those items that were specifically delineated by the manufacturing participants in this study were classified under the tangible skills theme. Those components that were difficult to specify were classified under the soft skills theme.

The manufacturing participants sought to use the electronic portfolio to confirm soft skills that told the human resource professional more about the applicant's goals, character, experience, and oral and written communication skills. As participants in the study stated, these skills can be exhibited in a myriad of ways through the use of an electronic portfolio. Additionally, these manufacturing participants were interested in using the electronic portfolio to confirm the tangible skills that an applicant possessed to meet the qualification of a diverse career field. The data showed manufacturing participants were interested in reviewing the decision-making and problem-solving abilities of a skilled worker, the transcripts, any certificates and licenses the applicant may possess, and the unique skill set they bring to the company. The research gave specific examples of the artifacts that should be included in the ePortfolio of an applicant seeking employment within the manufacturing sector.

Research Question 6. Can a suggested template for ePortfolios be developed that will be perceived to provide authentication of workplace skills useful to hiring officials in various technical areas?

The findings noted in Research Question 5 regarding the information participants find useful and expect in an ePortfolio was compiled into themes that were categorized into soft skills and tangible skills for both the manufacturing and nursing participants in

this study. The soft skill themes for the manufacturing and nursing participants were identical in this study. Figures 1 and 2 list the soft skills for each discipline.

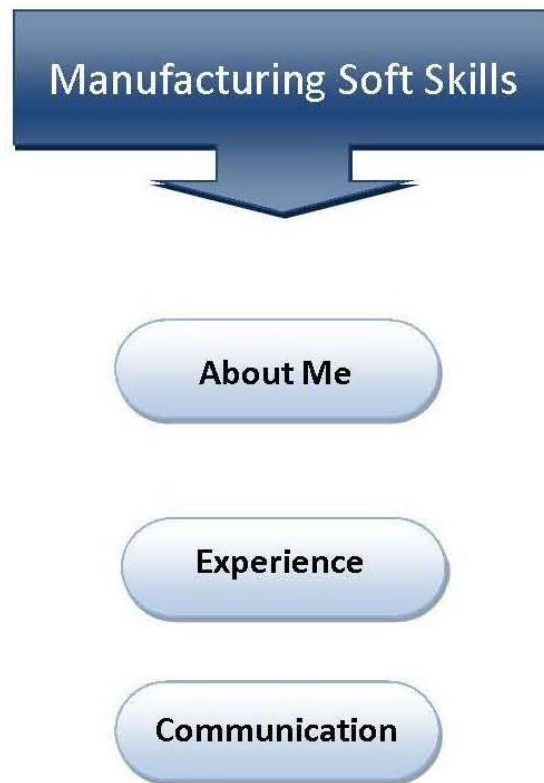


Figure 1. Summary of manufacturing soft skills.



Figure 2. Summary of nursing soft skills.

The differences in the skills that hiring officials desire to see in an ePortfolio can be seen in the differences in the tangible skills sections. While the participants stated that they wanted employees who had defined goals, character, experience, and communication skills, the technical skill set was vastly different. The tangible skills as defined by the sub-themes in Research Question 5 were depicted in Figures 3 and 4.

As participants discussed authenticating the skills of an applicant, several sub-themes and components emerged. Figures 5 and 6 pull into the diagram the sub-themes that were developed through the interview process. These sub-themes comprise the requested information that employers wanted to see an applicant exhibit.



Figure 3. Summary of manufacturing tangible skills.

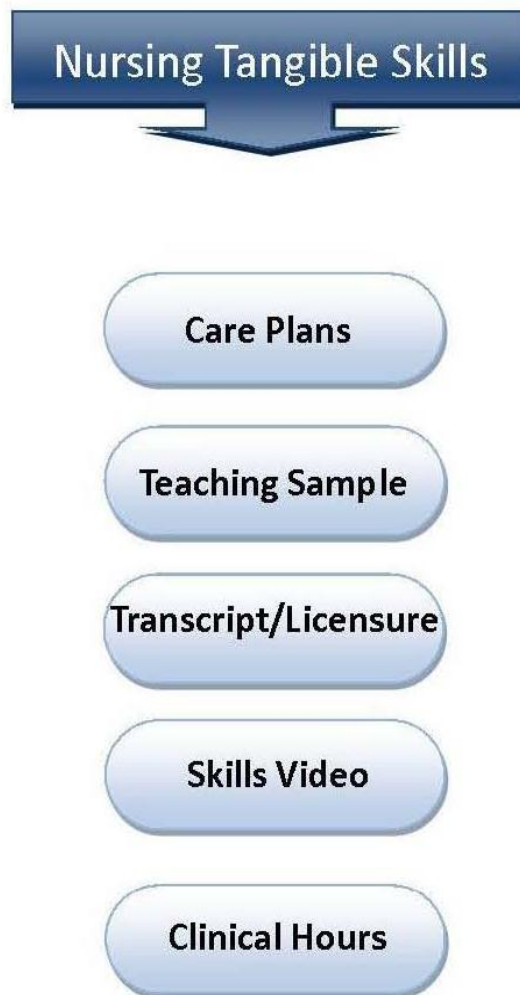


Figure 4. Summary of nursing tangible skills.

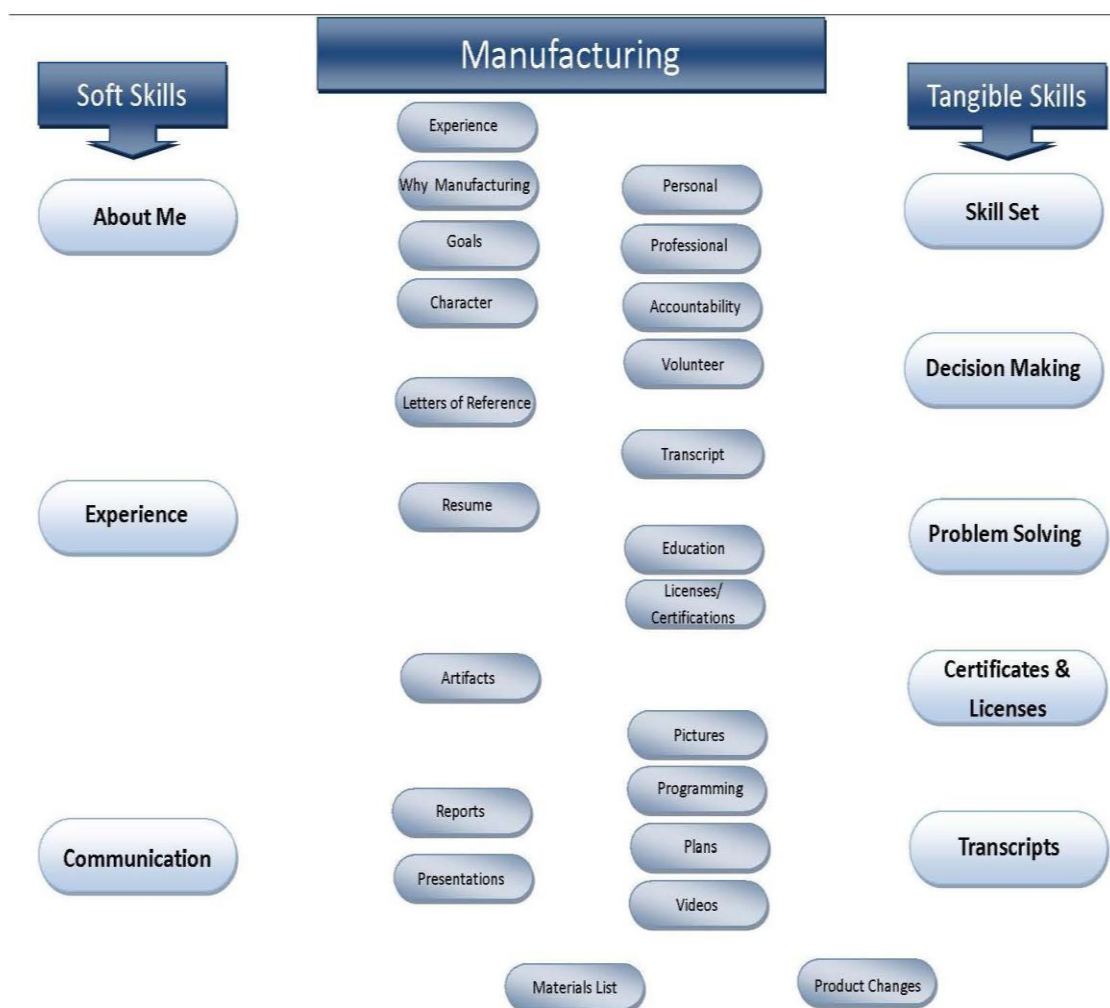


Figure 5. Manufacturing ePortfolio template.

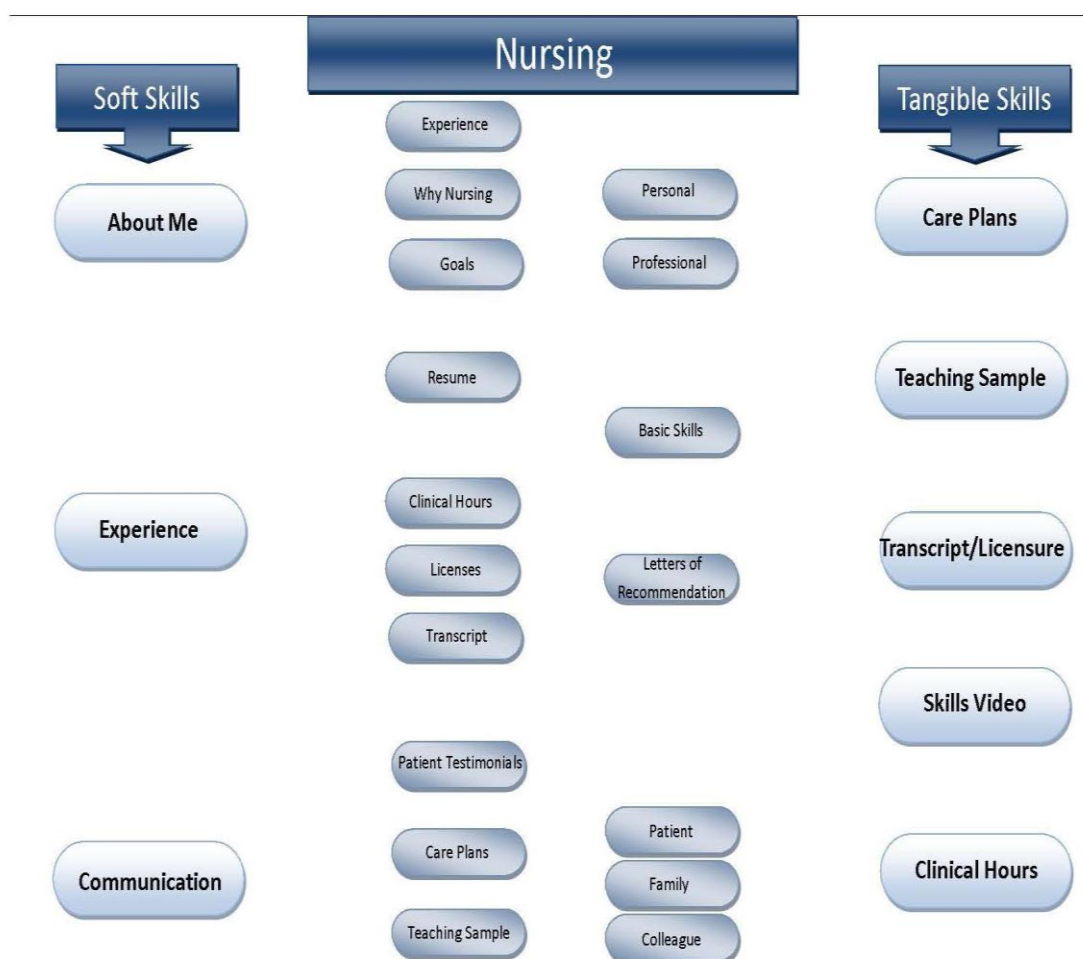


Figure 6. Nursing ePortfolio template.

While not every participant specifically stated a desire to evaluate a candidate based on all the sub-themes and components presented in this template, the grouping of sub-themes is a collective representation of those topics identified by participants that added value to the pre-employment screening process.

The more detailed list of the template themes, sub-themes, and recommended components identified by participants as critical elements in the screening of a manufacturing applicant exhibits the rich functionality of the template for the

manufacturing ePortfolio. The components were aggregated from the themes and sub-themes developed through the use of interviews, observations, notes, and documents obtained from participants in this study. The explanation of each component in Research Question 5 is delineated in the detailed list below:

- Detailed experiences within the manufacturing sector or applicable experience outside the manufacturing sector.
- Reasons an applicant had chosen a career in manufacturing as a career option.
- Both professional and personal goals the applicant is seeking to accomplish and the impact those have had on the applicant's career.
- Character components stated by participants including attendance, responsibility, initiative, and volunteer work.
- A detailed resume including actual copies of all letters of recommendation set as links within the resume.
- Work-related artifacts exhibiting the skills of an applicant including pictures, diagrams, programming language, drawings/plans, videos, materials lists, and product changes.
- Presentations that show the applicant speaking to a group or discussing the application of an acquired skill.
- Detailed educational account, including unofficial transcripts from each institution attended.
- Actual copies of certifications and licenses held by the applicant available for print by the employer.

The more detailed list of the themes, sub-themes, and recommended components identified by participants as critical elements in the screening of a nursing applicant exhibits the rich functionality of the template for the nursing ePortfolio. These components were aggregated from the themes and sub-themes developed through the use of interviews, observations, notes and documents obtained from participants in this study. The detailed explanation of each component in Research Question 5 is delineated in the detailed list below:

- Detailed experience that included a wide skill set and familiarity with many areas of a hospital or medical setting.
- Reasons an applicant had chosen the nursing field as a career option.
- An explanation of the personal and professional goals that the applicant had set and where they were in the process of accomplishing those goals.
- A detailed resume including actual copies of all letters of recommendation set as links within the resume.
- A listing of clinical hours that the applicant had logged within various medical settings.
- Actual copies of licenses held by the applicant available for print by the employer.
- Unofficial transcripts of the applicant's educational record, including continuing education.
- Patient testimonies (letters, cards, emails, survey responses, voicemail, etc.) of the care provided by the applicant.

- Detailed patient care plans demonstrating the breadth of experience an applicant has.
- Teaching samples that included instruction given to patients and families of patients and training conducted/presented within the medical community.
- Skills videos including, but not limited to, daily routines, administering drugs, suctioning, maintaining a sterile field, and infusion therapy.

The development of a template that was perceived to provide authentication of workplace skills useful to hiring officials in the manufacturing and nursing disciplines included the items most commonly requested by participants in this study. These templates were presented to Lori Phillips and Trish Berry, who were both seasoned professionals in the nursing and manufacturing disciplines respectively. Both members of the peer debriefing team stated that the perception of usefulness is predicated on the interrelation of the information the user can seamlessly access. This seamless access required the structure of the template to interrelate the components that were developed as themes in this study. The folding of large sums of data together in a seamless fashion became the role of the template. The sub-themes and related components provided a listing and depiction of skills that the creator of the ePortfolio demonstrated. Participant BN summarized the purpose the template is trying to serve as he said, “If they can give you examples that you can see of their work, and even more specifically, if they can provide supporting documentation like computer codes or schematics, you can really dig into the person’s abilities and knowledge.”

While the type of data that human resource professionals in this study were seeking to authenticate varied, the templates pulled the data together and allowed those

conducting pre-employment screening to determine how much information they wanted to see regarding the soft skills or tangible skills an applicant may have. With the interrelation of the data, manufacturing and service sector employers can navigate through the process of assessing an applicant's skill level during the pre-employment hiring process and save time and money by not having to use the interview process to confirm unproven statements made on an application or within a resume.

This chapter presented the major research findings in answering the research questions developed to answer the Grand Tour Question. The next chapter will provide discussions regarding the findings, conclusions, and theory propositions to be considered in the use of ePortfolios for the evaluation of candidates for employment.

CHAPTER 5

DISCUSSION AND CONCLUSION

Introduction

Data collected through semi-structured interviews, documents, observations, and notes were guided by the Grand Tour Question: In what ways do interviewers from manufacturing and service sector employers use an ePortfolio in the evaluation of candidates for employment, and do those evaluations lend themselves to the development of an electronic portfolio template? Six research questions were developed to answer this query:

1. Are there advantages of an ePortfolio over that of traditional pre-employment screening processes?
2. Does the ePortfolio showcase the skills that a candidate possesses in comparison to the skills required on the job to provide authentication of these necessary skills?
3. Are ePortfolios of value to manufacturing and service sector employers in the assessment of an applicant's skill level during the hiring process?
4. Are there advantages of an ePortfolio over that of a text-based portfolio?
5. What information do employers of career and technical students find useful and expect in an ePortfolio?
6. Can a template be developed that will be perceived to provide authentication of workplace skills useful to hiring officials in various technical areas?

Data interpretation according to Bogdan and Biklen (1982) included “working with data, organizing it, breaking it into manageable units, synthesizing it, searching for

patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (p. 145). Emphasis was placed on the use of inductive analysis whereby critical themes emerge out of the data (Patton, 1990). Similarly, the findings and data associated with this study were reduced by classifying the data through the search for words, phrases, and concepts that elicited patterns representing key concepts.

The use of peer debriefing during the analysis of the emerging themes and the development of the ePortfolio template was completed by seasoned human resource professionals not associated with the study. These professionals provided feedback on the material gleaned from the interviews in an effort to determine those areas within the study that needed further investigation. This process took place after the interview protocol began and led to changes within the protocol as concepts began to evolve from the data. They reviewed the data after it was transcribed from the participants in the study and provided feedback regarding necessary steps to fulfill the research goals of the study. They further reviewed the themes and sub-themes as they were presented in the ePortfolio template.

Review of the material gleaned and compiled from the human resource professionals in the area of nursing was completed by Lori Philips. Lori A. Phillips, DNP, RN, NP-C has been involved in virtually every level of nursing. Dr. Phillips spent 30 years as a clinician; she had practiced as an RN, a nurse practitioner, and an administrator. She also spent seven years educating nurses as a tenured faculty member and eventually as the Department Head of Nursing. Dr. Phillips was the Vice-President and Chief Nursing Officer at Gibson General Hospital in Princeton, Indiana at the time of the study. A letter by Dr. Phillips can be found in Appendix O. Review of the material

gleaned and compiled from the human resource professionals in the area of manufacturing was completed by Trish Berry. Ms. Berry held a Bachelor Degree from Eastern Illinois University and had over 25 years of experience in human resources for a large manufacturing entity with nearly 2,000 employees. She had experience hiring skilled and administrative employees in various manufacturing fields. She served as the Employee Relations Manager at this large manufacturer at the time of the study. A letter by Ms. Berry can be found in Appendix O. The reviews completed by these individuals aided in the comprehensiveness and validity of this study. This coding, development review process developed two themes from the data that related to the value of ePortfolio templates in the evaluation of candidates for employment, leading to the development of a template for ePortfolios in career and technical education. The themes were as follows:

Soft skills employers find useful and necessary in an ePortfolio.

Tangible skills employers find useful and necessary in an ePortfolio.

Data Interpretation

The advantage an electronic portfolio holds over traditional pre-employment screening methods is chiefly the amount and quality of information that an applicant can provide. Eure et al. (1985) stated,

It is important to recognize and realize that it is the applicant who provides most of the information used in a majority of the selection decisions. While employers may differ in the means and techniques, there are three popular instruments or techniques that are used for obtaining information about job applicants. The two written instruments are the application form and the resume with cover letter and the non-written technique is the interview. (p. 2)

Too often, these traditional pre-employment screening devices did not allow for the necessary information to be presented to the person doing the hiring.

Participants in the study decried the lack of information they receive from applicants in the standard cover letter, resume, and application. Participants wanted greater information, details, samples of work, fewer unknowns, more details about the ability of the person, and finally proof of the applicable skills possessed by the applicant. Bernthal & Wellins (2001) reported that the Electronic Recruiting Exchange surveyed 573 members regarding screening strategies and found that almost all (88%) of the organizations surveyed require candidates to submit a resume and complete a standard application (p. 4). It was interesting to note that all organizations in this study used resumes and standard applications as part of the selection process. For each of the manufacturing and healthcare entities in this study, these were the only two written instruments required in the screening process. While all participants recognized the inability of a single page to offer depth of information, their procedures did not reflect their continued desire for more information to make better decisions in the hiring process. Participant SB decried the lack of information as creating a “fact finding” mission for participants in the study as they had to use the initial steps in the hiring process to determine if the applicant had the skills to do the job in question. Participants recognized the richness an ePortfolio offered by providing greater information, samples of work, greater detail, and proof of applicable skill.

The richness of the ePortfolio is that it offers the look of a single piece of paper in a two dimensional setting while having the support of a third dimension just under the surface. “Portfolios are collections of work compiled by students over time that provide evidence of their attainment of skills. Careful selection of documents can demonstrate general education skills, general employability skills and skills specifically related to a

chosen occupational area” (Felstehausen et al., 1995, p. 31). The ePortfolio allowed an applicant to integrate information into a logical sequence of artifacts that can be accessed as the user of the ePortfolio desired greater depth of information in any area of an applicant’s skill set. This seamless transition between components allowed the user to navigate deeper into any category or between interrelated categories. Kelly (1998) in his book, *New Rules for a New Economy* advocated the connections that information and people are able to make only helps people to make better decisions.

The surest way to advance massive connectionism is to exploit decentralized forces-to link the distributed bottom. How do you build a better bridge? Let the parts talk to one another. How do you improve lettuce farming? Let the soil speak to the farmer’s tractors. How do you make aircraft safe? Let the airplanes communicate among themselves and pick their own flight paths. (p. 14)

The electronic portfolio has as its purpose this same initiative in the advancement of connections.

The connections between data components and artifacts in an ePortfolio regarding a person’s abilities allowed for the seamless transfer of information as it was needed and as it corresponded to the demands of the user. Focused communication corresponding to the demands of the user is predicated on voluminous information that is well structured.

The new economy is about communication, deep and wide. Communication is the foundation of society, of our culture, our humanity, of our own individual identity, and of all economic systems. This is why networks are such a big deal. Communication is so close to culture and society itself that the effects of technologizing it are beyond the scale of mere industrial sector cycle. Communication, and its ally computers, is a special case in economic history. Not because it happens to be the fashionable leading business sector of our day, but because it’s cultural, technological, and conceptual impacts reverberate at the root of our lives. (Kelly, 1998, p. 5)

The depth of communication within an ePortfolio not only impacted the end users by facilitating better, more efficient decision making, but also had the ability to impact the creator by putting that person in a position to authenticate their ability to do the job.

The ePortfolio can be designed to include any graphics or theme a person may want to include. However, participant SB stated in the interview that the ePortfolio should be “strictly business” and should not include background motifs or other distracting formatting. Beyond those constraints, the creator of the ePortfolio can be as creative as is appropriate for the job to which they are applying. The purposes of this multiple case study were to (a) determine if manufacturing and services sector employers found value in the use of an ePortfolio in the hiring process, and (b) develop a suggested template for an ePortfolio format to be used within career and technical education.

Drucker (2008) noted,

The things a person cannot do are of little importance; instead, you must concentrate on the things they can do and determine whether they are the right strengths for this particular assignment. Weaknesses are only limitations, and like the absence of formal qualifications, they can rule a candidate out. But performance can be built only on strengths. What matters most is the ability to do the assignment. (p. 310)

Participants in the study outlined the characteristics of successful applicants and how they used the ePortfolio in making those determinations. The information was synthesized into the two themes that were presented and need to be contained within the template ePortfolio. The themes were consistent amid the service sector and the manufacturing sector. Figure 7 provides a listing of the sub-themes that were developed from the study. Through the coding process, it became evident that there were two classifications of themes. As Bowen, Ledford, and Barry (1991) were quick to point out,

Proponents of employee selection as a key to human resource effectiveness answer that individual behavior is largely a function of the person. Selection techniques attempt to capitalize on enduring differences between individuals by choosing those individuals who are best suited to the job. (p. 35)

The two critical classifications involved in the selection of applicants in this study were the analysis of soft skills and tangible skills.

The principles governing the world of the soft-the world of intangibles, of media, of software, and of services-will soon command the world of the hard-the world of reality, of atoms, of objects, of steel and oil, and the hard work done by the sweat of brows. If you want to envision where the future of your industry will be, imagine it as a business built entirely around the soft, even if at this point you see it based in the hard. (Kelly, 1998, p. 2)

Participants in the study looked for applicants who provided the best fit for the organization, and this was done through the analysis of the applicant's soft skills.

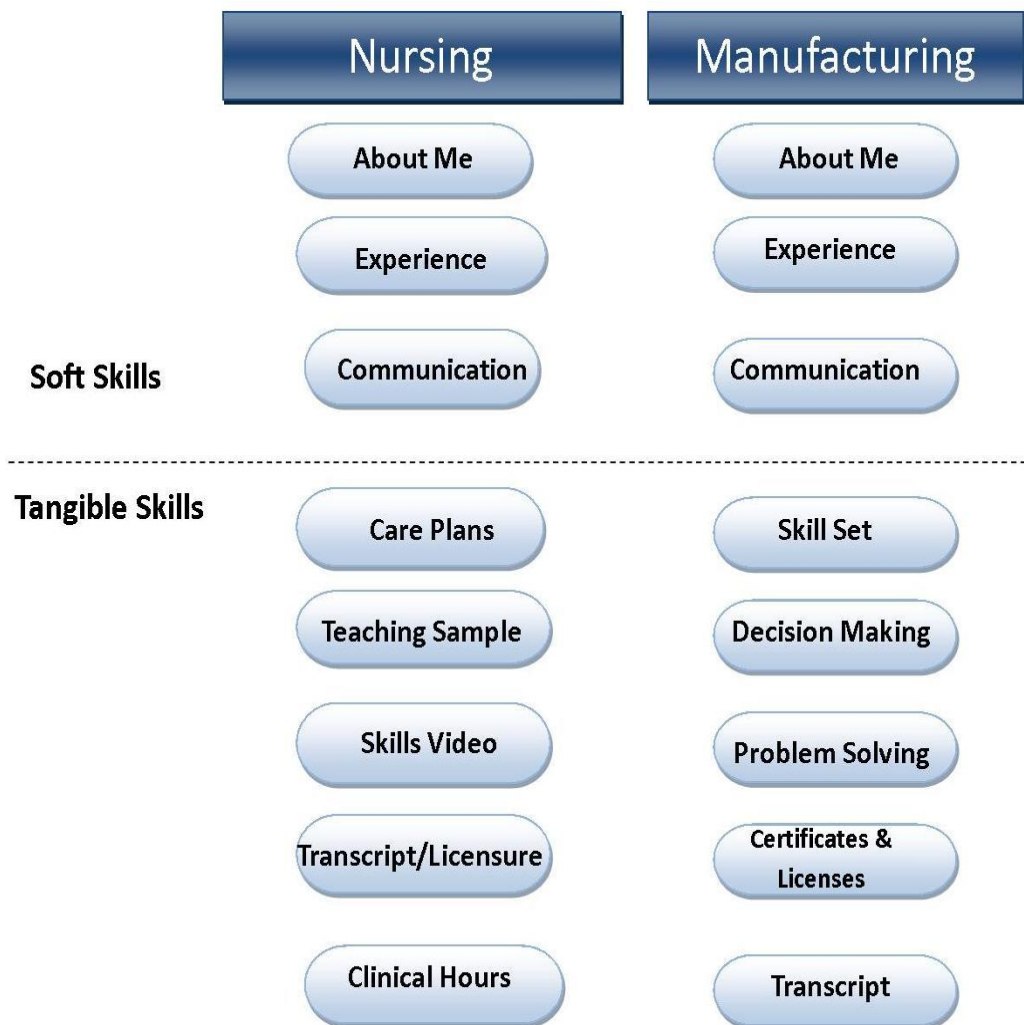


Figure 7. Summary of nursing sub-themes & manufacturing sub-themes

Soft Skills

The soft skills sub-themes identified for the nursing and manufacturing disciplines were identical. All the participants in the study identified and wanted more information about the applicant in terms of their goals, character, and why they wanted to work in the industry or where within the industry they wanted to work. Those components were all compiled into an area titled “About Me.” All of the participants were also interested in greater detail about the experience an applicant may have in the field. This area included

the traditional resume as a roadmap to all the other components within a typical experience section. Communication was the final component of the soft skills section, as the participants were interested in how well the applicant communicated in both written and oral formats. The American Machine Association conducted a survey of executives to determine critical skills necessary for success in manufacturing.

We focused heavily on what employers expect from new technicians entering the workplace. Soft skills are very important: the ability to work in multi-disciplined teams and to communicate with other workers, engineers, managers, and customers. A technician must take real world data and information and use critical thinking skills to analyze a problem logically and formulate a solution. Troubleshooting equipment and processes is especially important in a manufacturing environment. A technician is also expected to use computer-based software for technical analysis as well as for communication and presentations. (Schwabebauer, Peterson, & Yoshiwara, 2000, p. 207)

Similarly, in nursing, Sparks and Taylor (2008) established the importance of communication in the treatment of a patient.

Establishing communication between you and other nurses who will care for the patient, between you and health care team members in other departments, and between you and the patient. By soliciting the patient's input as you develop the care plan, you build a rapport that lets the patient know you value his opinions and feelings. By reviewing the care plan with other health care team members, and with other nurses, you can regularly evaluate the patient's response or lack of response to the nursing care and medical regimen. (p. xxvi)

Tangible Skills

The tangible skills areas for the ePortfolio templates are significantly different, as one might expect. These are vastly different types of employment and require vastly different skill sets. The tangible skills sections provide the user quick access to concrete artifacts that can be used to assess the workplace skills of an applicant. In the study, these files took the form of pictures, documents, videos, computer code, audio clips, and hyperlinks, to name a few. The categories used for each sector that was studied, do not

necessarily illicit thoughts of tangible skills. The titles of the themes that were developed in this study are not to be considered, on their own merit, soft skills or tangible skills; instead, these themes were grouped by the types of artifacts the participants wanted to see within the category or theme. If the participants gave specific examples of the types of artifacts they would like to see within a theme, then that sub-theme was denoted as a tangible skill. If the participants were not specific about the types of artifacts needed within a theme, then those general skills were grouped under the soft skills area. As an example, the manufacturing sector has ‘decision making’ and ‘problem solving’ as two of the categories under the tangible skills section. These are generally defined as soft skills, but participants in the study made a distinct separation between the types of underlying artifacts they were seeking to find when evaluating an applicant for employment and the general type of information they were seeking in the soft skills section.

The tangible artifact sub-themes that were developed for nursing included the following:

- Care Plans
- Teaching Samples
- Transcripts/Licensure
- Skills Videos
- Clinical Hours

The research findings suggest that participants in the study use tangible artifacts within these categories to make decisions about the ability of an applicant. Unlike the soft skills categories, these categories lead the user of the electronic portfolio directly to a specific artifact(s) that can authenticate the ability of the applicant within each category.

It is therefore imperative that the template include each of these themes as stand-alone categories that the end user of the ePortfolio could quickly recognize and be able to access. The study found the inclusion of artifacts within each category best authenticates an applicant's ability in the pre-employment screening process. Participants stated their desire to hire applicants with multiple skills or transferrable skills in this study. These were described by participants of this study as critical categories for them to evaluate in the pre-employment analysis of a candidate and was also consistent with the general hiring premises set forth by Andrew DuBrin (2007):

Hiring people who are good at learning and teaching makes a substantial difference in the effectiveness of knowledge management. Not enough companies have built into their competency models how well people learn and pass on their knowledge informally on the job. If you have got people who are hungry to learn and people who are good at transferring knowledge, the organization will be much more alive. (p. 349)

The themes of care plans and teaching samples provided insight into the ability of the applicant to teach while the themes of transcripts/licenses and clinical hours gave insight into the desire for learning and the ability of the applicant.

The nursing care plan integrated all aspects of the skills of a nurse. Participants in the study recognized that a well-conceived and properly-written care plan provided direction, continuity of care, communication, and a key for patient care assignments.

The nursing care plan refers to a written plan of action designed to help you deliver quality patient care. It includes relevant nursing diagnoses, expected outcomes, and nursing interventions. Keep in mind that the care plan usually forms a permanent part of the patient's health record and will be used by other members of the nursing team. The care plan may be integrated into an interdisciplinary plan for the patient. In this instance, clear guidelines should outline the role of each member of the health care team in providing care. To provide quality care for each patient, you must plan and direct that care. Writing a care plan lets you document the scientific method you have used throughout the nursing process. On the care plan, you summarize the patient's problems and

needs (as nursing diagnoses) and identify appropriate nursing interventions and expected outcomes. (Ralph 7 Taylor, 2008, p. xxvi)

Patient education has become an ever-increasingly desirable skill for nurses.

Participants recognized the need for employees to not only be able to exhibit skills needed in the field of nursing, but also to be able to instruct patients, family members of patients, and healthcare colleagues. This strengthens the entire establishment and improves the health of all patients. Participants provided examples of how this educational component of the job often took place in an informal, unstructured manner when the patient was most responsive to the instruction. Ignatavicius and Workman (2010) recognized that,

Patient education is a major component of medical-surgical nursing care. In collaboration with the interdisciplinary team, the nurse strives to improve health by facilitating patient learning regarding health promotion, disease and illness, and specific treatment. As educators, you will teach individual patients and family members or other caregivers. The role of education has become increasingly important because patients are discharged 'quicker and sicker' from the hospital, transitional care, or skilled nursing home unit. (p. 4)

The research showed that participants liked to review an applicant's work history, they were comfortable evaluating that information using a resume, and it was a standard feature on all resumes and applications. The research also showed that the participants wanted to evaluate the detailed experience of an applicant through their clinical hours. It was therefore most beneficial for the clinical hours and work experience to exist in a format that allowed for greater ease of reference as opposed to them being listed as isolated components of a resume or application. The electronic portfolio can be designed so that the information from the work experience and the clinical hours are integrated. CW recognized the advantages of a structure like that when she said,

I would like to see a representation of the skills that they have or the clinical hours they have logged in various areas. If that could be interactive with the places they worked, it would be much more beneficial than purely a timeline of how long they worked at a specific place.

The electronic portfolio allowed information to exist in three dimensions and provided the opportunity for a person to see the information separately or in combination as the viewer so chose. As an individual reviewed the work history within an electronic portfolio, a link could easily activate a box to show the various clinical hours that an individual worked within each department while they were employed at a given institution. This interactivity provided the richness the ePortfolio has to offer over traditional pre-employment screening methods.

The participants in this study also wanted to see the applicant exhibit skills that a nurse would be required to use for patient care during a daily routine. Videos would provide tangible evidence that the applicant has the skills to do the job at hand. This tangible skills theme derived from the research was an example of the richness an electronic portfolio provided as it was linked to multiple components within the ePortfolio. The electronic portfolio provides links to skills listed by participants, such as patient assessment, infusion therapy, sterile fields and wound care, but the richness of the ePortfolio allowed for the inclusion of communication samples, teaching samples, oral recommendations, and many other components that provided depth not available in traditional pre-employment screening techniques.

Manufacturing Tangible Skills

Many people see organizational structures and processes as very rigid with little change over time. Technological innovations and competition are driving forces in change for manufacturing organizations today. Snell and Dean (1992) noted the

difference the advent of internal, lean manufacturing practices has had on the human resources capital theory and systems theory views of the relationship between human and technical subsystems:

They hypothesized that human resource management (HRM) would be directly influenced by the presence of advanced manufacturing technology (AMT), total quality management (TQM), and just in-time inventory control (JIT). Using data from 512 manufacturing firms, they found that firms using traditional technologies were less likely than firms using AMT to engage in selective hiring. (p. 469)

Participants in the study were also quick to note that retaining and engaging workers required looking for skills beyond the knowledge and ability to do a specific task. Finding employees that could adjust and make modifications on the fly to products and processes was essential. Schwabenbauer et al. (2000) noted “Organizations are continually changing, routinely, easily, and responsively, but change within organizations cannot be arbitrarily controlled. . . . What most reports on implementation indicate . . . is not that organizations are rigid and inflexible, but that they are impressively imaginative” (p. 207). This study underscored the imaginative nature of organizations, as participants were looking for the cognitive ability to complete a task and to solve problems that are natural occurrences within the production process. No longer were rudimentary cognitive abilities the only job requirements that human resource professionals seek. According to interviews and observations in this study, the emphasis in manufacturing was on troubleshooting and problem solving. Lang (2010) noted that the American Management Association’s (AMA) critical skills survey called for improvement in skills and competencies.

Proficiency in reading, writing, and arithmetic has traditionally been the entry-level threshold to the job market, but the new workplace requires more from its employees. Employees need to think critically, solve problems, innovate,

collaborate, and communicate more effectively—and at every level within the organization. (p. 1)

Manufacturing participants in the study emphasized critical thinking, problem solving, and communication. These sub-themes were developed and accordingly placed within the template. Critical thinking and problem solving skills could be authenticated using tangible artifacts and were thus placed in the tangible skills section of the template.

The tangible artifact themes that were developed for the manufacturing sector included the following:

- Skill Set
- Decision Making
- Problem Solving
- Certificates & Licenses
- Transcripts

Similar to the service sector's tangible skills section, the manufacturing tangible skills section could be seen as a breakdown of the two overarching themes of cognitive ability and hands-on skills.

Because cognitive ability is normally distributed in the population, human resources with high ability levels are, by definition, rare. Thus, it is safe to say that firms with high average levels of cognitive ability relative to their competitors possess more valuable human capital resources than those of competitors. (Wright, McMahon, & McWilliams, 1993, p. 11)

Through the interview process, participants noted the importance of problem solving to their organizations and that implementation of concepts and ideas was critical for the companies moving forward. Participants were most interested in seeing how an applicant decided to solve a given problem and at what point in the process the problem was

identified and solved. Experience within the manufacturing environment can be seen by the systematic solutions that a person used to solve problems. “In an organization, a problem is an obstacle that stands in the way of achieving a desired goal” (Butterfield 2009, p. 2). Many times these solutions are derived from a solution that was effective for a prior problem and can be applied to a future problem. Butterfield (2009) stated that “recent college graduates and others who are new to the workforce often solve problems by reacting to them” (p. 2).

Butterfield (2009) further noted that “A major part of problem solving involves making effective decisions. As you improve your problem-solving skills, you will naturally develop your decision-making ability as well” (p. 2). A variety of measurements of a candidate’s ability to make decisions was noted by participants, but generally was directly linked to the detail that an applicant could show through the use of the ePortfolio in the pre-employment screening process. These included supplying code for differing applications of the manufacturing process such as CNC (computer numerical control) or PLC (programmable logic controllers). Participants were also very interested in the revisions that a person made over time, so they could see the decision-making process and not just the final product. The ability to overcome obstacles was noted by each of the participants in this study and providing tangible artifacts was necessary for each of the participants. It should therefore be noted that participants in this study saw the experience and the problem-solving ability of an applicant as interrelated. The ePortfolio allowed an applicant to integrate the components of experience and problem solving together in a seamless way so the reviewer of the ePortfolio could move between

the two categories effectively. Robbins (2005) noted the increasing importance of training.

Technical training has become increasingly important because of changes in organization design. As organizations flatten their structures, expand their use of teams, and break down traditional departmental barriers, employees need mastery of a wider variety of tasks and increased knowledge of how their organization operates. (p. 591)

Technical skills were an integral part of the placement of an applicant within the manufacturing sector. This study focused on the skills that were being evaluated by a human resource professional in the pre-employment screening of an applicant.

Applicants had to claim they had the skills depicted in the position announcement or they were not going to be invited to an initial interview. Within a manufacturing facility, these skills varied depending on the job. Participants assumed the skills section would depict the skills that the applicant possessed and that the applicant would demonstrate applicable skills for the position. Participants continually echoed the statement by Robbins that they were looking to find people with “a wide skill set,” “multiple certifications”, and even one participant referred to the ideal candidate as “a renaissance man.” It was critical for those developing an ePortfolio to exhibit multiple skills within the skill set section. Participants stated they would find a job for candidates with a wide skill set as they were the most valuable to the organization.

The Suggested Template

The usefulness of the template for the ePortfolio can be seen in the rich depth of information a hiring official could access to authenticate the workplace skills of an applicant. As an example, the user of an ePortfolio could click on a button titled “about me” and choose to click on the applicant’s resume. At that point the user may want to

see more information about the person's education. With the click of a mouse the transcript can be reviewed and printed. The ePortfolio is an "organized collection of complex, performance-based evidence that indicates one's growth, goals, and current knowledge and skills needed to be competent in a role or area of expertise" (Campbell et al., 2000, p. 151). Figures 8 and 9 illustrate the richness of the ePortfolio through the use of dashed lines. These lines interconnect the components of the ePortfolio with related information or expand upon the information already presented. Obviously, all the information within the ePortfolio is interconnected, but the expanded view of the template in Figures 8 and 9 show that the template has a core of information that can be seen in the middle of the chart.

Observations

All participants in this study had experience, not just as human resource professionals, but also in the field of manufacturing or nursing. Each of the participants in the service sector were licensed nurses who had taken on the additional duty of hiring nurses or had moved from a position as a nurse into a management role. The nurses that had taken on the additional duty of hiring nurses were individuals who worked in the smaller facilities that hired fewer individuals on an annual basis. It is an assumption that experience within the field of nursing contributed to more effective screening methods in the pre-employment screening process.

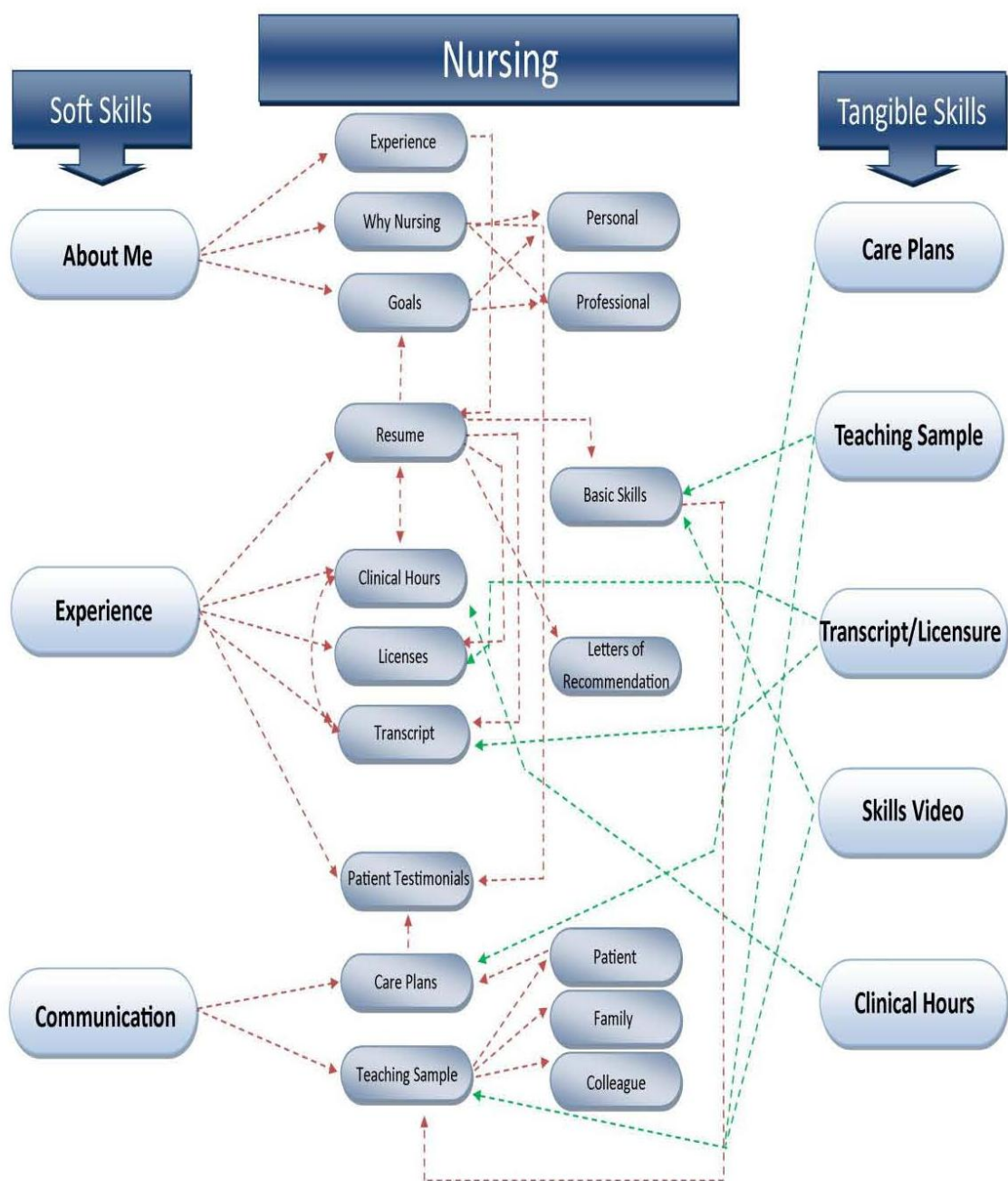


Figure 8. Interconnectedness of nursing themes.

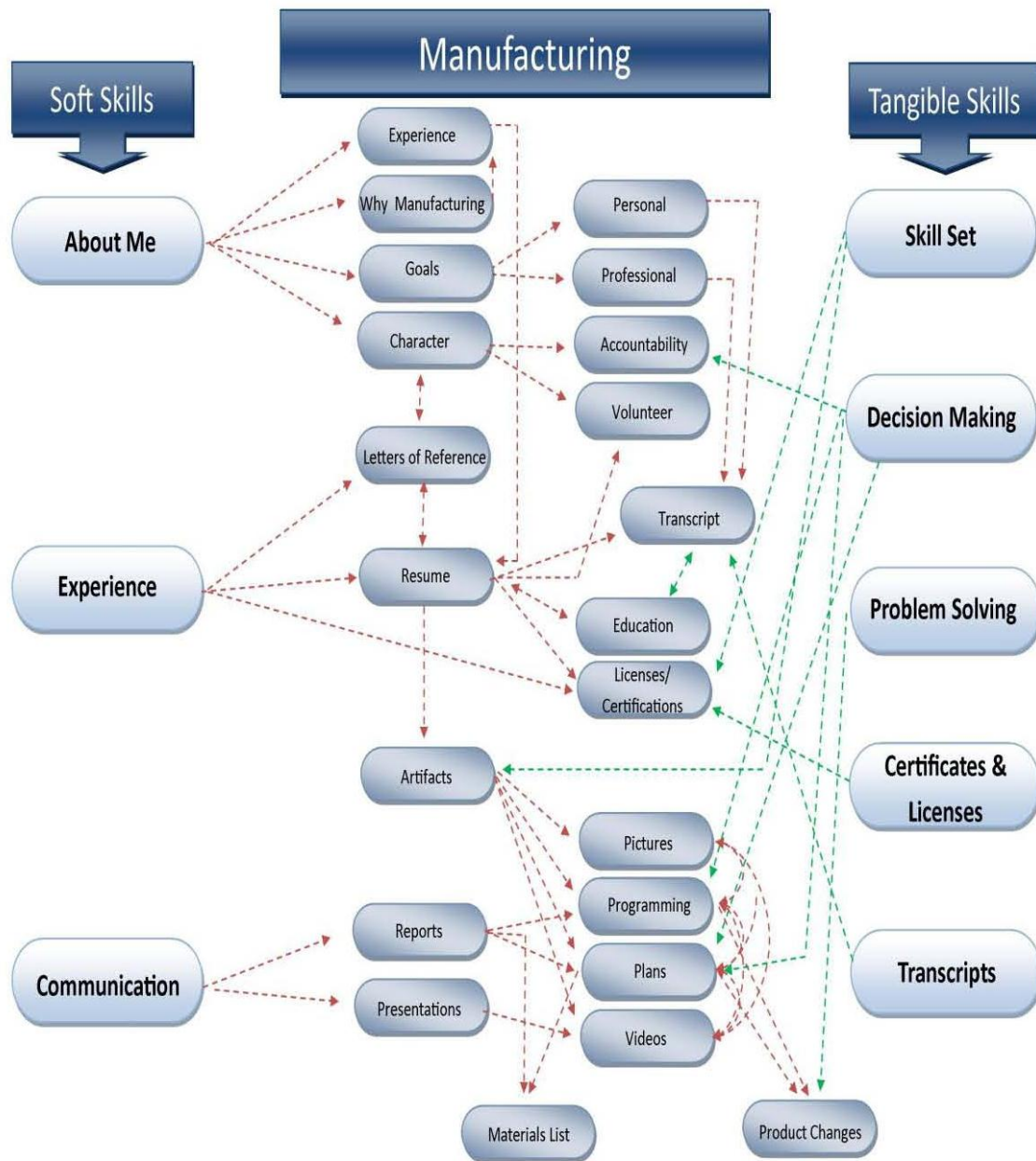


Figure 9. Interconnectedness of manufacturing themes.

This study did not explore if any past experience in the field of nursing had an effect on the quality of applicants that matriculated past the initial pre-employment screening process. Within the manufacturing sector, each of the individuals responsible for the hiring of employees had several years of experience within the manufacturing sector, but their experience did not necessarily mirror the jobs for which they were seeking applicants. Positions within a manufacturing facility vary greatly in the skills that are required to do a specific job, and while these professionals had all been promoted from other levels within a manufacturing facility, their skills were not necessarily advantageous to them in making hiring decisions for each of the skilled positions they might seek to fill. This study did not explore the relationship experience within a manufacturing facility may have had on the pre-employment screening process.

The age and gender profile of the participants in the study was similar to what one would expect in both of these professions. According to the US Department of Health and Human Services (2003), gender for registered nurses at the national level was 94.1% female and 5.9% male. In the study, five of the six participants (83.3%) in the nursing field were women. The participants from the manufacturing sector were just the opposite. Five of the six participants (83.3%) from the manufacturing sector were men. According to the U. S. Department of Labor Statistics (2005), only 3.8% of full-time employed women work in the manufacturing sector of the economy. No variation was seen in the responses of participants in the study based on gender, but this could be attributable to their overwhelming minority status within their respective positions. Additionally, the difference in the average age of nursing participants in relation to the manufacturing participants in the study was about eight years. The six nursing

participants in the study had an average age of just under 39 years, while the average age of the manufacturing participants was nearly 47 years. This variation in age and ultimately experience might be explained by the specialization that existed in the nursing discipline, while those in the manufacturing sector had gained experience many times in a variety of positions within the facility working their way through the organizational structure to an administrative position. Within the nursing discipline, the movement toward a non-medical management position was not considered advancement and typically does not bring an increase in pay. It is usually a horizontal move that provides greater stability of work hours. The opposite was true for managerial positions within the manufacturing sector. Jobs that moved people off the production line and toward office work were considered promotions and come with increased compensation. Regardless of the variation in age and gender, little disparity was seen in the responses.

The size of the organization effected the use of the ePortfolio in the pre-employment screening process. The larger the organization, the more apt that organization was to have a rigid process that made it more difficult to include anything outside the normal submission requirements. Although, all of the participants in this study noted they would receive an attachment to the resume or application if it was submitted. Some large, multinational firms in the area have gone to all-electronic applications, and this could greatly impinge the applicant's ability to authenticate skills through the use of an electronic portfolio that is anything but web-based.

While the type of data that human resource professionals in this study were seeking to authenticate varied, the templates pulled the data together and allowed those conducting pre-employment screening to determine how much information they wanted

to see regarding the soft skills or tangible skills an applicant may have. With the interrelation of the data, manufacturing and service sector employers could navigate through the process of assessing an applicant's skill level during the pre-employment hiring process and save time and money by not having to use the interview process to confirm unproven statements made on an application or within a resume.

Theory Propositions

1. The ePortfolio saves time and money in the pre-employment screening process.
2. The ePortfolio better clusters applicants by ability than traditional pre-employment screening tools.
3. The suggested template developed for nursing is an appropriate template to use for other service sector career and technical education programs.
4. The suggested templates derived from this study do not support curriculum-level decision making, but are appropriate for program-level assessment.
5. Human Resource professionals are inclined to review an electronic portfolio and feel that they provide preferential treatment to those individuals who present an ePortfolio during the pre-employment screening process.
6. The smaller the company the greater the impact the ePortfolio will have on the person making the hiring decision.
7. The ePortfolio will not replace the resume or application, as human resource professionals will continue to use them in their processes.

CHAPTER 6

IMPLICATIONS FOR FURTHER RESEARCH

Introduction

The purpose of this multiple case study was to investigate the use of electronic portfolios in the manufacturing and service sectors in order to (a) determine if manufacturing and services sector employers find value in the use of an ePortfolio in the hiring process, (b) develop a suggested template for an ePortfolio format to be used within career and technical education, and (c) add to the knowledge base regarding the utilization of electronic portfolios. This chapter summarizes the research problem, the research methods, and the findings of the study. The chapter will use the research findings described in Chapter 5 as the basis for discussions, conclusions, and implications for further research in the use of electronic portfolios.

Summary of Literature Findings

Prior research had suggested the evaluation of candidates for employment was critical in the performance of an organization. According to a study done by Eure et al. (1985) at Southwest Texas State University “employee selection is the most important decision because it determines who will be responsible for particular tasks and jobs during future periods of time” (p. 1). Similarly, Witt (1996) noted in his study on productivity that, “there are many ways to improve productivity, but none is more powerful than making the right hiring decisions” (p. 22). A famous writer on the subject of management, Peter Drucker (2008), stated, “there are no more important decisions within an organization than people decisions: Staffing a job, placing people into jobs and into assignment, promoting people, letting them go and so on.” (p. 308). Each of the

individuals involved in this study recognized the effects, opportunities, and costs associated with the hiring of employees. The difference in this perception, based on the size of the institution, was notable. The smaller institutions had more at stake in the hiring decisions, as each employee constituted a larger percentage of an institution's workforce, and thus, the smaller entities had placed people of greater experience and of greater authority in the position of making hiring decisions. The results that materialized from the analysis of the literature on electronic portfolios demonstrated the importance of hiring decisions, the valid use of ePortfolios in education, and ultimately the lack of research on the use of electronic portfolios in the pre-employment screening process.

Portfolios in Education

Portfolios were being used as assessment tools in many institutions of higher education and had long been used in graphic design and art programs. The movement of technology within society had ushered in the electronic portfolio. Yancey (2001) stated that it is "through hyperlinking, it invites one to make connections between and among classes, experiences, and observations" (p. 28). Most of the literature on the subject of electronic portfolios pertained to the value ePortfolios had in an educational environment. In their synthesis of "Eportfolio Research: A Slim Collection," Herman and Winters (1994) noted the following:

Well-designed ePortfolios represent important, contextualized learning that requires complex thinking and expressive skills. Traditional tests have been criticized as being insensitive to local curriculum and instruction, and assessing not only student achievement but aptitude. EPortfolios are being heralded as vehicles that provide a more equitable and sensitive portrait of what students know and are able to do. EPortfolios encourage teachers and schools to focus on important student outcomes, provide parents and the community with credible evidence of student achievement, and inform policy and practice at every level of the educational system. (p. 48)

Paulson and Paulson (1991) used the term ‘story telling’ as a metaphor to describe proof of learning as an activity. They said,

An ePortfolio tells a story. It is the story of knowing. Knowing about things. . . . Knowing oneself. . . . Knowing an audience. . . . ePortfolios are students’ own stories of what they know, why they believe they know it, and why others should be of the same opinion. An ePortfolio is opinion backed by fact. . . . Students prove what they know with samples of their work. (p. 2)

The Australian Department of Education (2006) defined ‘skills literacy’ as “the ability to identify one’s own skills and describe them using appropriate language and examples” (p. 83). Brammer (2007) denoted that departmental goals, when aligned with the workforce, should help employers see proof of necessary skills when reviewing an ePortfolio. “In short, ePortfolios that students create to satisfy departmental requirements primarily for departmental assessment purposes, help potential employers see a richer, multi-dimensional version of student qualifications than can be conveyed through a resume, regardless of page numbers” (p. 7). Kimeldorf (1997) stated,

When a job seeker offers to share a portfolio during the hiring process, he or she makes the difficult [hiring] decision easier. That's because a portfolio contains evidence of one's work-abilities (sample letters, memos, news clips, reports, charts, plan sheets, budget print outs, photos, etc). The portfolio provides an alternative to checking references. I believe that the job seekers who supply additional credible information about past performance during the interview will enjoy a more favorable response than those who rely solely on words or resumes. (p. 1)

It is this combination of massive amounts of information in an organized framework and the ease at which it could be accessed that gave the electronic portfolio the edge over other methods of authenticating skills, knowledge, and ability. Campbell et al. (2000) recognized these components by defining them as an “organized collection of complex, performance based evidence that indicates one’s growth, goals, and current knowledge and skills needed to be competent in a role or area of expertise” (p. 151).

This ability to authenticate one's skills within the field of education was exactly what employers were seeking to do during the pre-employment screening process. According to the Community College Research Center, employers rewarded new hires for having the skills or credentials needed for the job, underscoring the importance of having the requisite "tools in your toolbox" (Bailey et al. 2004, p. 1). The weak link in the literature, however, was between what the student knows and had proven to satisfy departmental requirements within their program of study and the skills necessary to satisfy the requirements of a job in that field. Choban et al. (2004) noted that our ability to convey the learning of students to all stakeholders is paramount in the educational process (p. 6). Fitch (2004) stated that "webfolios offer students a means not only of developing their professional personas, but also of forging professional connections, gaining professional opportunities, and perhaps even ultimately securing the positions they desire" (p. 3). It was the purpose of this study to add to the literature in attempt to bridge the gap between the use of the electronic portfolio for departmental assessment purposes and the development of a template to be used in career and technical education that employers found value in using during the pre-employment screening process.

This multiple case study was designed as a qualitative study using participants within the Advisory Council of Wabash Valley College. Six healthcare institutions representing the service sector of the economy and six manufacturing institutions representing the manufacturing sector of the economy were represented in this study. These 12 participants had experience using an electronic portfolio in the hiring process and were in a position to directly determine the hiring of an individual. The data collected consisted of semi-structured interviews, documents, observations, and field notes. This

case study was a small sample of human resource professionals who had used electronic portfolios and other pre-employment screening measures in the hiring process, and not representative of the perceptions of all human resource professionals in the service and manufacturing sectors. The intent of the study was to ultimately develop a template that students within the nursing and manufacturing departments could use in the development of a portfolio that would satisfy the requirements of departmental assessment while the student was completing their education and the job search requirements after a student graduated. The results of the study established a structure for the development of a template for career and technical education students studying within the disciplines of Manufacturing or Nursing. With that said, several limitations should be noted regarding the study.

Although each of the participants in the study had seen or used portfolios in the past, the use of electronic portfolios by the participants was not a regular occurrence. The use of electronic portfolios in their pre-screening processes was an exception and not a general practice. Human resource professionals in this study had very few individuals applying for jobs with electronic portfolios and therefore had no procedures developed for the use of the electronic portfolio in the pre-employment screening process. This led to variations in the interview process by the researcher. Although a pre-determined list of questions was developed with the use of outside experts in the field of electronic portfolio research, the probes the researcher used to acquire additional data from participants as they responded to the questions varied based on their experiences. Additionally, the sample size of the study was limited to six human resource professionals from the manufacturing sector and six human resource professionals from the healthcare sector.

This small sample size allowed for greater immersion into the practices of the human resource professionals and the entities they represented, but also makes it difficult to generalize the results. A final limitation of the study involved potential misinterpretations by the researcher caused by researcher bias. Although every precaution was taken throughout the study to protect against undue influence on the part of the researcher, the familiarity of the subject and the immersion into the topic by the researcher may have inadvertently influenced the interpretation of findings associated with the research in this study.

Recommendations and Implications for the Use of ePortfolios in Pre-employment Screening

Based on the literature review and research findings associated with this study, there were several recommendations that should be made for the use of electronic portfolios in the pre-employment screening process. Participants in this study had experience using the electronic and text-based portfolios as submitted by previous applicants for past positions within the companies they represented. Although they had experience with the use of an electronic portfolio, the experience was limited. The vast majority of job applicants utilize the traditional tools of a cover letter, a resume, and an application. Participants also indicated the resume to be the item within an ePortfolio they were most likely to view first. This comfort level with the traditional resume was based on the familiarity with its structure and information after years of use. The inclusion of a resume in the ePortfolio should provide a sense of comfort to human resource professionals and a map from which to review an applicant. Additionally, wide-range training on the use and applicability of the ePortfolio in the pre-employment

screening process will help human resource professionals gain a comfort level in the operations and types of artifacts available in the use of electronic portfolios. This training is likely the responsibility of the educational institutions in the service area that have implemented the electronic portfolio as an assessment tool.

Encourage the Submission of Electronic Portfolios

Data from the study showed that the institutions represented by the participants in this study did not have a defined area on the application for employment for applicants to include web addresses for their ePortfolio. Participants indicated they normally receive electronic portfolios as links on a resume or in the form of a CD attached to the paper submission of a resume and application. The inclusion of an input field or data entry box on the application where applicants can place the web address of their electronic portfolio would aid the employer and encourage the use of electronic portfolios in applying for employment positions.

As participants in this study noted, the savings of time and money they experienced using electronic portfolios warranted the development of procedures to encourage the use by job applicants. Utilizing the application to garner web addresses of ePortfolios could eliminate the need for the movement of external data sources like a CD through the hiring committee in a timely manner. It would additionally provide a permanent record for use by the human resources department when documenting specific certifications, experiences, licenses, or transcripts.

Encouraging the use of electronic portfolios in the application process could very well be as simple as dedicating a space for the website inclusion on the application. The recognition of that opportunity to provide additional information about their abilities and

skills could lead to a more consistent submission of electronic portfolios by applicants. This could ease the time and expense involved in the pre-employment screening process as it relates to authenticating the tangible or soft skills of an applicant by human resource departments.

Recommendations and Implications for the Development of Template ePortfolios for Education/Training Institutions

Based on the literature review and research findings associated with this study, there were many recommendations that could be made for the use of electronic portfolios in the development of a template to be used for student assessment within a career and technical program of study and in the job search. Although the development of the templates for manufacturing and nursing programs in career and technical education were constructed from the findings of this study, the following recommendations provide guidelines for the implementation of these templates in career and technical education. It is important to note that educational institutions preparing students for employment upon completion of a program of study have a responsibility to not only train the student to have the requisite competencies to be a productive member of the workforce, but also to prepare them to compete for the best jobs in their chosen vocation. This responsibility is a shared responsibility of the educational institution and the student, but the responsibility for educating the student about the value of an electronic portfolio and teaching the development of such a tool falls on the educational institution. These responsibilities include, but are not limited to, evaluating course and programmatic objectives through the inclusion of all stakeholders in programmatic discussions, identification of competencies to be assessed within the program, alignment of curriculum and

competencies, identification of artifacts that authenticate programmatic competencies, and the development of evaluation criteria.

Include all Stakeholders in Programmatic Discussions

The stakeholders of the program for which the electronic portfolio is being developed should be sitting at the table for discussions that pertain to the objectives of the program. These objectives should include the goals of student knowledge and technical ability upon the completion of a career and technical program of study. Ultimately, these students will try to convince an employer that they have the requisite skills in a field of study to do the job in question. A broad group of these potential employers should be evaluating the programmatic objectives and recommending appropriate modifications to the curriculum to mirror the skills needed within that specific field of study. The group of stakeholders should also include faculty, administrators, employers, students (current and past), and other stakeholders as may be appropriate for the program.

Identify Competencies to be Assessed Within the Program

The purpose of the electronic portfolio is multifaceted and should contain the competencies developed by all the stakeholders of the program. The identification of the competencies must include the information students need to provide related to each competency that is developed. This information needs to include any skills or professional standards that have been used in the identification of the competency, how the competency will be measured, and how it will be demonstrated.

Align Program Curriculum and Competencies

Programmatic curriculum must follow the identification of necessary competencies within a program of study. The alignment of the competencies and the

curriculum for a given program will require a systematic approach with the electronic portfolio in mind. The identified competencies require a great deal of programmatic work. This will require examining the list of competencies stakeholders of the program have identified and determining the appropriate coursework that will lead to the development of artifacts that authenticate the competencies. Emphasis should be placed on the interrelationship of the themes identified in the study and noted in the template. The breadth of information and the interconnectedness of the artifacts were especially valuable to the participants in this study. It is this interlinking of standards, competencies, and artifacts through an electronic medium that facilitates the transition from assessment tool to an employment tool.

Identify Artifacts That Authenticate Program Competencies

The identification of artifacts that have the potential to serve as authentication of a skill or competency should be aggregated and placed within the themes set forth in the template. It is imperative that the competencies developed by faculty, staff, and external stakeholders be the standards by which assignments within programmatic coursework are developed in an effort to yield artifacts for inclusion in the electronic portfolio. These artifacts should be delineated for students early in their program of study to allow them to anticipate and retain these items throughout their program of study. Students should additionally be encouraged to include artifacts that they personally recognize as important in their educational tract.

Develop Portfolio Evaluation Criteria

The development of a system to validate a student's competency is necessary to reliably authenticate the ability of a student through the use of a student's ePortfolio.

These ePortfolios should not be evaluated in totality, but rather evaluated based on predetermined measures that reflect the student's mastery of each competency. The ePortfolio that is evaluated in a summative fashion by educators can fail to provide students with an evaluation similar to that which an employer will use to evaluate the skill level of an applicant based on the utility of the individual skills. The development of the ePortfolio started with core competencies that students were to master within a program, and it is therefore the mastery of each of those core competencies that should be evaluated. The standards and criteria used in the evaluation must be established and used to assess the artifacts collected, presented, and integrated into the ePortfolio.

Conclusion

In the literature related to electronic portfolios, a chasm exists between the use of the electronic portfolio for educational assessment and the job search. Previous studies have focused on the role of the electronic portfolio in educational assessment. Zubizarreta (2009) acknowledged the growth in the research attributed to the use of electronic portfolios in education: "Empirical and action research in the use and benefits of the student portfolio have led to growing and increasingly credible literature on the subject and have inspired guidelines for implementation of innovative student portfolio policies and programs" (p. 223). As Brammer (2007) noted,

Electronic portfolios (eportfolios) have slipped silently into colleges and universities as effective assessment tools for student work. While originally conceived as methods for demonstrating student competencies and department as well as university commitment to learning, eportfolios are beginning to find their way into the world of work. The phenomenon poses interesting questions for business, communication scholars, and practitioners. (p. 1)

The research sought to determine if employers found value in using the ePortfolio in their pre-employment screening process and if a template format could be developed for use

by students in career and technical education programs to link the programmatic assessment criteria in career and technical education to that used in pre-employment screening within the same field. The data in this study confirmed that human resource professionals rely on two main forms of information in the pre-employment screening process, the resume and the application. Participants felt electronic portfolios containing the right information saved them time and money when seeking to hire skilled laborers. The findings also showed electronic portfolios to provide greater depth of information, more accurate information, connections amongst the information presented, and more detailed information. Naude and Maynihan (2004) spoke to the flexibility of the portfolio's application:

E-portfolios are also more portable and transferable. It is also a very flexible document that can be modified to suit the level and range of competencies that the student wants to reflect. Once the student has completed an e-portfolio, it is easy to use the information to address the selection criteria for different job applications. (p. 4)

It is for that reason that more employers are seeing the submission of electronic portfolios in the application process. Text-based portfolios proved too cumbersome to be used in the application process, but the portability of the ePortfolios has led to wider use as a job application tool. Buzzetto-More (2010) noted, "The majority of companies offering placements use online application. It is possible that these could be replaced over time by students having their own web area and online presence, to which they can point employers" (p. 186).

As students find applications for their ePortfolios, it is the human resource personnel that must adapt to the medium by which information is being presented to them. Carliner (2005) recognized the ePortfolio as a tool employers will have to utilize,

Although much advice exists on how to prepare eportfolios, considerably less advice exists to help hiring managers, career advisors, professional certification specialists, and others evaluate them. Because some of the criteria for evaluating portfolios are unique to disciplines and other criteria need to be developed to help reviewers search for hidden talents, developing those criteria will prove challenging. (p. 73)

As participants in this study noted, the benefits associated with making better hiring decisions and using less time and fewer resource in the process, is worth the integration of the ePortfolio.

The list of possible benefits is long. The most significant benefit would surely be the huge amount of time saved since the applicant already needs to match their eportfolio information to the requirements of the position and every piece of supplied information could be processes automatically due to the storage in the applicant's assessment ePortfolio. If the applicant already has a personal ePortfolio, placing an application could also be simplified by transferring data from the personal ePortfolio to the application portfolio. ePortfolio interoperability is still an issue. (Christmann & Dahn, 2006, p. 5)

Participants in this study did not have processes or procedures in place to objectively evaluate electronic portfolios. Participants quickly recognized the value of the ePortfolio and indicated that they were more impressed with an applicant who provided an electronic portfolio. Participants still evaluate applicants on key pre-determined skills, but an unfair advantage existed for those submitting an ePortfolio. The data suggested that a grouping of soft skills and tangible skills, represented in Figures 5 and 6, reflected the desired skill set for an applicant in the healthcare or manufacturing sectors.

The template included both tangible and soft skills. Carnevale (1991) noted this change years ago; "Flexibility in the varied and changing environments of the new economy also requires a solid foundation in reading, writing, and computational skills, as well as the capacity to learn, solve problems, and be creative" (p. 102). Carnevale (1991) went on to say, "Expanded scope of action on the job requires the ability to juggle a

variety of responsibilities and tasks. Employees in the new economy need specialized competencies, but also more holistic skills such a self-management and interpersonal skills” (p. 103).

The templates for nursing and manufacturing career and technical education students gave life to the data and allowed the voices of participants in this study to be applied. Reese and Levy (2009) pulled together the use of the electronic portfolio to accomplish the tasks of authentic assessment and job search viability. “E-Portfolios allow students to present a comprehensive overview of academic and extracurricular activities along with self-reflection and supporting evidence (artifacts) to a potential employer” (p. 4). It is imperative that students have the requisite tools to compete in their chosen field of study, just as it is imperative for employers to adapt their procedures to new forms of applicant screening. Kimeldorf (1999) viewed the resume as simply an ineffective tool in determining the skills of an applicant and the portfolio as a tool that could assist job seekers in presenting their skills and competencies in a persuasive manner. “Job seekers who supply additional credible information about past performance will enjoy more favorable responses than those who rely solely on words or resumes” (p. 1). Kimeldorf (1999) went on to say, “resume[s] alone are no longer adequate to describe a person’s experiences in this fast-paced, constantly changing work environment” (p. 2).

There is a need to continue the study of the template ePortfolio developed through this research from both the perspective of the employer and the student. This will help bridge the chasm that exists between the use of electronic portfolios for programmatic assessment and for employment standards.

Recommendations for Future Research

The template developed from this study may serve as a basis for future studies on the use of electronic portfolios in the pre-employment screening process and their integration into career and technical education. It is suggested that the template be widely tested for the development of a model students within career and technical education can use for the purposes of programmatic assessment and job search.

Assessment within education is growing in scope as stakeholders seek to determine what a student knows and place great value on that knowledge base. The electronic portfolio is a popular assessment tool in education. Linking the programmatic outcomes of career and technical education programs with the skills necessary to gain employment in a career and technical field of study requires integration of all stakeholders. Within this study, a small scale examination of the perceptions of human resource personnel from the manufacturing and healthcare sectors was conducted. The template developed from the findings of this study needs large scale examination in an effort to develop a model that can be widely used in career and technical education programs. That model has the potential to allow faculty and students to analyze coursework for opportunities to develop and retain artifacts that speak to the mastery of skills necessary in programmatic evaluation and job search criteria.

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APPENDIX A**IRB APPROVAL**



HUMAN RESEARCH PROTECTIONS
Institutional Review Board

July 6, 2006

Matthew Fowler
Dr. Ronald Joekel
Ed Admin
124 TEAC
(0360)

IRB # 2006-05-398 EP

TITLE OF PROJECT: **Developing Model Eportfolios in Career and Technical Education through Pre-employment Authentication Of Workplace Skills In a Digital Medium**

Dear Matthew:

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. It is the Board's opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study. Your proposal seems to be in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

Date of EP Review: **06/9/06.**

You are authorized to implement this study as of the Date of Final Approval: **07/6/06**. This approval is Valid Until: **07/5/07**.

- I. Enclosed is the IRB approved Informed Consent form for this project. Please use this form when making copies to distribute to your participants. If it is necessary to create a new informed consent form, please send us your original so that we may approve and stamp it before it is distributed to participants.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

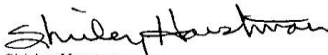
- Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
- Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
- Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
- Any breach in confidentiality or compromise in data privacy related to the subject or others; or
- Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

For projects which continue beyond one year from the starting date, the IRB will request continuing review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact Shirley Horstman, IRB Administrator, at 472-9417 or email shorstman1@unl.edu.

Sincerely,


Dan R. Hoyt, Chair
for the IRB


Shirley Horstman
IRB Administrator

cc: Faculty Advisor

APPENDIX B**PHONE SCRIPT**

Phone Script

This is Matt Fowler how are you today _____ (name of contact). It has been a while since we last talked. Anything new at _____ (place of employment).

I was calling to see if you would be willing to give me about an hour of your time to interview you for a study I am doing on electronic portfolios. This project is in partial fulfillment of my doctoral study at the University of Nebraska-Lincoln and consists of about 20 questions that center around your use of electronic portfolios in the hiring process. Your participation is completely voluntary and has no impact on your membership in the Wabash Valley College Advisory Council. Would you be free to meet in your office on _____ at _____?

Thank you for your assistance!

Matt Fowler

APPENDIX C**INFORMED CONSENT**

Identification of Project:

Developing model ePortfolios in Career and Technical Education through pre-employment authentication of workplace skills in a digital medium.

Purpose of the Research:

This is a research project for the purpose of determining how employers use electronic portfolios in the pre-employment process. You are invited to participate in this study because of your familiarity with the use of ePortfolios in the hiring process and your experience in hiring candidates with skills related to the Wabash Valley College Advisory Council to which you belong.

Procedures:

Participation, which is completely voluntary, will require approximately 60 minutes of your time. We would like to conduct an interview with you about your experiences in authenticating a job candidate's workplace skills prior to the interview. This interview will be audio taped with your permission.

Risks and/or Discomforts:

There are no known risks or discomforts associated with this research.

Benefits:

You may find the information helpful in evaluating your current interview protocol for applicants.

Confidentiality:

Any information obtained before or during this study will be held in the strictest of confidence. All tapes and transcribed records of interviews and demographic information will be held under tight security. Audio tapes will be erased upon completion and verification of their transcription. All records will be kept for a period of three years from the date of the Informed Consent form and then destroyed. It must be noted, that the results of the research could be presented in a dissertation, at professional meetings, conventions and publications. All names will remain anonymous and the results will be presented in aggregate form.

Compensation:

There will be no compensation for participating in this research.

Opportunity to Ask Questions:

You may ask the investigators questions at any time by contacting us at the numbers listed below. If you have any questions about your rights as a research participant that have not been answered by the investigators, or to report any concerns

about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965.

Freedom to Withdraw:

You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators, the University of Nebraska-Lincoln, or the Wabash Valley College Advisory Council. Your decision will not result in any loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form for your records.

Signature of Participant:

(Signature of Research Participant)

(Date)

Name and Phone Number(s) of Investigator(s)

Matt Fowler, MBA, Principal Investigator

(618) 262-4495

Ronald G. Joekel, Ph.D., Secondary Investigator

(402) 472-0971

APPENDIX D

CONFIDENTIALITY AGREEMENT

CONFIDENTIALITY AGREEMENT

THIS AGREEMENT is made and entered into this 28th day of May, 2006, by and between Jackie Pixley of Mt. Carmel, Illinois ("Pixley"), and Matthew Fowler of Mt. Carmel, Illinois ("Fowler").

WITNESSETH, that:

WHEREAS, Fowler desires to obtain the services of Pixley to transcribe approximately 35 audio-taped interviews that Fowler has conducted with certain individuals concerning the pre-employment practices and procedures used by the companies for which these individuals work, all in connection with Fowler's research for his doctoral dissertation at the University of Nebraska, and

WHEREAS, Pixley is willing to transcribe the audiotapes, acknowledging the confidential and proprietary information contained thereon.

NOW THEREFORE, in consideration of the delivery to Pixley of the audiotapes and the confidential and proprietary information contained thereon and the compensation to be paid to Pixley for her services, Pixley agrees as follows:

Definition.

The term "Confidential Information" as used herein shall include any and all written, audio, electronic and verbal information provided by Fowler to Pixley in connection herewith including, without limitation, the information contained in the audio-taped interviews.

Acknowledgment.

Pixley acknowledges the representation of Fowler that the Confidential Information is proprietary and valuable to Fowler and the University of Nebraska and that any disclosure or unauthorized use thereof may cause irreparable harm and loss to Fowler and the University of Nebraska.

3. Obligations of Pixley.

In consideration of the disclosure to Pixley of the Confidential Information, Pixley agrees to receive and to treat the Confidential Information on a confidential and restricted basis and to undertake the following additional obligations with respect thereto:

(a) To use the Confidential Information for the sole purpose of transcribing the audio-taped interviews for Fowler.

Not to duplicate, in whole or in part, any Confidential Information.

(c) Not to disclose Confidential Information to any entity, individual, corporation, partnership, customer, client or third party of any nature or description without the prior express written consent of Fowler.

(d) To return all Confidential Information to Fowler upon request together with all notes or records made from such Confidential Information.

4. Survival.

The restrictions and obligations of Paragraph 3 of this Agreement shall survive completion of the services performed by Pixley hereunder and any termination or cancellation of this Agreement.

5. Governing Law.

This Agreement shall be construed and enforced in accordance with the laws of Illinois.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

Matthew Fowler

Jackie Pixley

APPENDIX E**TRANSCRIPT VERIFICATION FORM**

Project Title: Developing Model Eportfolios in Career and Technical Education

Dear _____:

As we discussed I would like to offer you this opportunity to review the transcript of our recent conversation concerning the use of electronic portfolios as a pre-employment screening tool. There is no need to worry about editing for grammar but please note any errors you find and add additional comments that you think will provide additional clarity. Please mark in the appropriate space below to indicate your level of approval with the transcript.

_____ I approve of the interview transcript without reading it and have no additional comments to add.

_____ I have read the interview transcript and approve it without changes.

_____ I have read the interview transcript and approve it with the noted changes and additional comments.

_____ I do not approve of the interview transcript.

Provided you approve the transcript, I would like your consideration of the pseudonym or general identifier that would be used to describing specific situations or statements that you have provided that may illustrate and give richer detail to the context of ePortfolios by career and technical students. For this purpose, I would like to suggest _____ as the pseudonym that I would use in this situation. Please mark in the appropriate space below to indicate your level of approval is using such pseudonym.

_____ I approve the pseudonym indicated above when references are made to specific situations or statements that I have provided.

_____ I approve the use of _____ (provide alternative) as the pseudonym or general identifier that would be used when references are made to specific situations or statements that I have provided.

_____ I do not approve the use of any pseudonym.

Signature of Participant

Date

Please return this form and the transcript, if changes were made, in the enclosed addressed, stamped envelope. Thank you again for your time and participation.

Matt Fowler, MBA, Principal Investigator

(618) 262-4495

Ronald G. Joekel, Ph.D., Secondary Investigator

(402) 472-0971

APPENDIX F

INTERVIEW QUESTIONS

Interview Questions

1. Are you better able to determine the skills of a job applicant that has an electronic portfolio?

2. In your opinion, what aspects of the electronic portfolio are MOST helpful to your decision making process?

Probe: What do you consider to be the strengths of a portfolio?

3. What aspects of the electronic portfolio process do you think, were LEAST helpful to your decision making process?

Probe: What problems do you perceive applicants have constructing portfolios?

4. Do you treat candidates that have electronic portfolios differently than those who do not have one? If so please describe this difference.

Probe: What are your initial thoughts when you see that a candidate has a portfolio?

5. Does an electronic portfolio usually give an accurate representation of the candidate's abilities? Can you give an example?

Probe: Based on an applicant's portfolio, how are you best able to determine if a candidate has the requisite skills to do the job in question?

6. Do you believe electronic portfolios make a difference in the hiring process?

Probe: How has the use of portfolios in the hiring process effected your satisfaction in new hires?

7. What do you look for first in an electronic portfolio? Why?

Probe: Is there a critical trait of successful employees that you seek to find in the interview of applicants?

8. In your opinion, what elements do you like to see in an electronic portfolio and please describe them?

Probe: What elements must be included in a portfolio?

9. What elements of an electronic portfolio provide the needed evidence by which to verify an applicant's skills?

Probe: Are you able to verify hands-on skills by using an ePortfolio?

10. How would you explain and introduce a good portfolio to another member of the human resource department?

Probe: How would you define a good electronic portfolio?

11. Are there advantages to using an ePortfolio over a text based portfolio? If yes... what are these advantages? If no...why not?

12. Do you think electronic portfolios offer enough components to represent an applicant effectively? If not, what would you include?

Probe: How does the portfolio represent the applicant?

13. How do you know if a candidate presents a quality electronic portfolio?

Probe: Does the style of the portfolio impact your perceptions?

14. What strategies do you use to evaluate electronic portfolios?

Probe: Do you use a systematic process to review a portfolio or is every review different?

15. If you could review an ideal ePortfolio, what would it look like?

Probe: Describe for me the best portfolio you have ever reviewed.

16. What guidance would you provide applicants to help them make the perfect electronic portfolio? Please give some examples.

Probe: What critical elements does an ePortfolio need to contain

Probe: Are there non-industry specific skills that you would like to authenticate using a tool such as the ePortfolio?

APPENDIX G**NURSING SKILLS CHECKLIST**

Total In-home Providers

Skilled Nursing – Skills Competency Assessment

Name: _____ Title: _____ Date: _____

The following is a list of many of the skills required for effective home health care. It is important that you feel competent in the areas and can demonstrate expertise. The purpose of this checklist is to help identify past experience, skill level, and identify expertise in certain critical areas. Please check the column appropriate for your skill level for each task.

Responsibility, Skill or Procedure	I have never done	I need further inservicing	I feel competent performing	Educ/Prec. (Date/Initial)
G	Vital signs			
E	Body mechanics			
N	Intake and output			
E	Reality orientation			
R	ROM – active and passive			
A	Use of gait belt			
L	Use of the doppler			
A	Head and neck			
S	Cardiopulmonary system			
S	Respiratory system			
E	Gastrointestinal system			
S	Genitourinary system			
S	Neurological system			
M	Integumentary system			
E	Musculoskeletal system			
N	Mental status			
T				

[illegible][illegible]

[illegible][illegible]

[illegible]

Please list any skills or areas of expertise/special interest not listed:

[illegible]

Nursing Institution B

Employee Name _____ Date _____

Page: 2

	✓	Date Completed	Signature of person responsible for training
Director of Nursing: _____			
1. Attendance			
2. License & Signature			
3. Scheduling- Vac/ Personal, Holidays			
4. Performance reviews			
5. Privacy issues & Confidentiality			
6. Other:			
Clinical Manager: _____			
1. Receiving physicians orders & on call physician			
2. When to call on-call Nurse			
3. Payroll & timeclock			
4. Location of supplies IV's, lab supplies, catheters, charging Orbits, etc.			
5. CNA Scheduling & Supervision			
A. Positive reinforcement & praise			
B. Write- ups & personnel actions			
6. Weekend duties			
7. Other:			
Dir. of Training & Infection Control: _____			
1. Infection control policies			
2. Isolation Procedures			
3. Cathcare, incontinence care, wound care			
4. Mandatory Inservice			
5. Independent living residents, Charts, procedures, etc.			
6. Other:			
RISK Management & Restorative: _____			
1. Incident report			
2. Abuse policies & procedures			
3. Mechanical lift policies & procedures			
4. AAR's & procedures for Falls			
A. Chair alarms			
B. Bed alarms			
C. Lap buddies, etc.			
5. Restorative Nursing			
6. Other:			
MDS: _____			
1. MDS charting			
2. Weekly charting			
Other:			

Employee Name _____ Date _____

Page: 1

ORIENTATION- check off for RN's/ LPN's

Return to Director of Nursing when completed

	✓	Date Completed	Signature of person responsible for training
New Employee Orientation Inservice			
Wesley I: _____			
1. Medication Administration			
2. Treatments			
3. Psychotropic Meds			
A. Obtaining physicians order & obtaining permission from family			
B. Behavior Monitoring			
4. Physicians Orders			
A. Receiving & Documentation			
B. Monthly Phy. Order sheets			
5. Resident LOA policy & procedures			
6. Fire & Emergency alert system			
-- Pendant alarms --			
7. Staff Social Steering Committee			
8. Other:			
WESLEY II: _____			
1. Medication Administration			
2. Treatments			
3. Admission & readmission procedures			
Admission assessment			
4. Transfer of resident to hospital			
5. Medicare- procedures & charting			
6. Special procedures- IV's pic lines, etc			
7. Other:			
Dycus: _____			
1. Medication Administration			
2. Treatments			
3. DNR policy			
4. Confidentiality			
5. Forms			
A. Medication Errors			
B. Adverse Drug Reaction			
C. AIMS			
D.			
E.			
6. Other:			

APPENDIX H

NURSING PATIENT CHARTING (ON PAPER)

Healthcare Institution C

Patient Label	ANTEPARTUM SBAR Communication Kardex
Date Updated _____ Allergies _____	
SITUATION	
Diagnosis _____	
G_____ P_____ AB_____ L_____ EDC_____ WKS_____	
Procedure Date _____ Level of Care _____	
Observation Date/Time _____	
Inpatient Date/Time _____ <input type="checkbox"/> Amenities bag given	
Medications _____	
P.R.N. Medications _____	
Blood Type _____ Rhogam <input type="checkbox"/> Ordered <input type="checkbox"/> Given _____	
Rubella <input type="checkbox"/> Immune <input type="checkbox"/> Non-Immune Rhogam (28 wk) _____	
ROM _____ Last Cervical Exam _____	
Beta Strep Date Collected _____ <input type="checkbox"/> Negative <input type="checkbox"/> Positive <input type="checkbox"/> Unknown	
FFN _____ Betamethasone _____ / date(s)	
Glucola done _____ Amnisure _____	
ASSESSMENT	
Vital sign frequency _____ FM Orders _____	
Diet _____ <input type="checkbox"/> Dietitian form on chart	
# of carbs per snack _____	
Refrigerator in Room <input type="checkbox"/> Yes <input type="checkbox"/> No Temp ✓ AM & PM	
Blood sugar frequency _____	
Activity <input type="checkbox"/> Up ad lib <input type="checkbox"/> Up with assist <input type="checkbox"/> Bedrest	
<input type="checkbox"/> TCDB until ambulating well Shower _____	
Linens Changed _____	
<input type="checkbox"/> Teds <input type="checkbox"/> SCDs <input type="checkbox"/> W/C Ride _____	
<input type="checkbox"/> Daily Wt <input type="checkbox"/> Wkly Wt Most recent wt _____	
IV _____ IV Site Date _____ Tubing Chng _____	
Magnesium Sulfate _____ Mag Level _____	
DTR _____ Clonus _____ O2 Sat _____ Lung Sounds _____	
I/O frequency _____ BM date _____	
Shift intake total _____ Shift output total _____	
<input type="checkbox"/> Foley D/C @ _____ <input type="checkbox"/> Specimen Sent _____	
<input type="checkbox"/> Cath p.r.n.	
Voiding QS <input type="checkbox"/> Yes <input type="checkbox"/> No Ante Patient Meet _____	
Massage Therapy _____ Laptop Computer _____	
<input type="checkbox"/> Consents signed <input type="checkbox"/> Delivery papers completed	
BACKGROUND	
Medical History/Pregnancy _____	
MFM Consult <input type="checkbox"/> No <input type="checkbox"/> Yes	
If yes: <input type="checkbox"/> Consultation only	
<input type="checkbox"/> Co-Management for following issue(s) _____	
<input type="checkbox"/> Total Care	
NICU Tour _____ DVD _____ Neonatologist Visit _____	
Physical Therapy _____	
LABS	
ULTRASOUNDS	
DAILY NOTES	

SBAR POSTPARTUM REPORT

Date _____ Room # _____
 Name _____ Age _____
 MD _____ Allergies _____

Situation

Del Date/Time _____ Vag C/S _____ Tubal _____
 G _____ P _____ AB _____ L _____ EDC _____ Weeks _____
 Anesthesia _____ Epls/Lac/Inc _____

Background

Medical/Pregnancy History _____
 Beta Strep Pos Neg Unknown Treated _____
 Blood Type _____ Rhogam → Ordered ☐ Given ☐
 Immune/Non-Immune → Meruvax → Ordered ☐ Given ☐
 Tetanus/Pertussis screen → Tdap → Ordered ☐ Given ☐
 Flu Vaccine → Ordered ☐ Given ☐

Assessment

Hgb _____ → Vitals _____
 Breasts _____ Fundus/Lochia _____ BM _____ Flatus _____
 Void qs 3 2 1 Foley _____ Tedsn SCD's Incen-Spiro _____
 Diet _____ Sitz _____ Blidat _____
 Meds _____

IV _____

I & O _____

Recommendations

PA/BC ☐ D/C Video ☐ Teaching ☐ Gift Pack ☐ Pictures ☐ Surveil
 Comments: _____

Boy Girl Ped _____ Notified/On L _____
 Wt _____ Hypoglycemic/GBS Protocol _____

Breast/Bottle First Feed Time _____ Last Fed _____
 Lact. Consult _____ Void ☐ Stool ☐

Bill _____ NIS _____ Hearing Screen Pass/Refer-Date _____

Blood Type _____ Circ Consent _____ Hugs# _____
 Coombs _____ Circ _____ Cord Clamp _____

Comments: _____

SBAR POSTPARTUM REPORT

Date _____ Room # _____
 Name _____ Age _____
 MD _____ Allergies _____

Situation

Del Date/Time _____ Vag C/S _____ Tubal _____
 G _____ P _____ AB _____ L _____ EDC _____ Weeks _____
 Anesthesia _____ Epls/Lac/Inc _____

Background

Medical/Pregnancy History _____
 Beta Strep Pos Neg Unknown Treated _____
 Blood Type _____ Rhogam → Ordered ☐ Given ☐
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 Tetanus/Pertussis screen → Tdap → Ordered ☐ Given ☐
 Flu Vaccine → Ordered ☐ Given ☐

Assessment

Hgb _____ → Vitals _____
 Breasts _____ Fundus/Lochia _____ BM _____ Flatus _____
 Void qs 3 2 1 Foley _____ Tedsn SCD's Incen-Spiro _____
 Diet _____ Sitz _____ Blidat _____
 Meds _____

IV _____

I & O _____

Recommendations

PA/BC ☐ D/C Video ☐ Teaching ☐ Gift Pack ☐ Pictures ☐ Surveil
 Comments: _____

Boy Girl Ped _____ Notified/On L _____
 Wt _____ Hypoglycemic/GBS Protocol _____

Breast/Bottle First Feed Time _____ Last Fed _____
 Lact. Consult _____ Void ☐ Stool ☐

Bill _____ NIS _____ Hearing Screen Pass/Refer-Date _____

Blood Type _____ Circ Consent _____ Hugs# _____
 Coombs _____ Circ _____ Cord Clamp _____

Comments: _____

APPENDIX I**HEALTHCARE INSTITUTIONS JOB APPLICATIONS**

Health Care Institutions A

H. A. I.

EMPLOYMENT APPLICATION

Thank you for your interest in employment with St. Mary's Health System. Please provide all information requested to be sure all of your qualifications are fairly considered for current and/or future vacancies on our staff. The completion of this employment application does not automatically result in an employment interview or job offer. It is the policy of all our facilities to provide equal opportunities to all without regard to race, color, sex, religion, national origin, age, physical or mental disability.

(Please Print or Type)

☐ Medical Center ☐ EMS ☐ Physicians' Health Group (PHG)
☐ At Home/DME ☐ Breast Center ☐ Surgicare ☐ Physician Network (SPN)

Position Desired: _____ Date: _____

Name: _____ (Last) _____ (First) _____ (Middle) _____

Address: _____ City: _____ State: _____ Zip: _____

Home Phone: () _____ Work Phone: () _____ Message Phone: () _____

Email address: _____

I am available for / willing to accept the following type of employment (check all that apply):
☐ Full time ☐ Part time ☐ Casual (On call, as needed) ☐ Summer ☐ Temporary

I am available for / willing to accept the following shifts (check all that apply):
☐ Day ☐ Evening ☐ Night ☐ Any Shift ☐ Rotating

If any records are in another name, please list: _____

Are you currently employed at any of the following St. Mary's entities?

☐ Medical Center ☐ Breast Center ☐ EMS ☐ Building Corp
☐ At Home/DME ☐ Surgicare ☐ Physician Network (SPN)
☐ Physicians' Health Group (PHG)

I. PERSONAL INFORMATION

Are you prevented from lawfully becoming employed in this country because of visa or immigration status?

☐ Yes ☐ No (Proof of eligibility is required upon employment).

Have you been convicted of a felony or any healthcare related criminal offense?

☐ Yes ☐ No If yes, please explain: _____

(Conviction of a crime does not automatically prevent you from being employed; all circumstances will be considered.)

Have you ever applied for employment with Medical Center, or any Health System entity within the past 2 years?

☐ Yes ☐ No If yes, approximate date of application: _____ Which entity? _____

Have you previously been employed at Medical Center, or any Health System entity?

☐ Yes ☐ No If yes, from: _____ to _____ Title: _____ Records under what name: _____

Do you have any relatives currently employed at Medical Center, or any Health System entity?

☐ Yes ☐ No If yes, Name (s): _____ Relationship (s): _____

Employed by which entity? _____

What first led you to apply?

☐ Walk in ☐ Newspaper
☐ HIRE Line ☐ Employee Referral Name: _____
☐ Previously employed @ St. Mary's ☐ Agency Name: _____
☐ St. Mary's Website ☐ Job Fairs
☐ Radio Ad ☐ 14wfe Website
☐ Other _____

8650-103

H. A. 2

II. EDUCATION & TRAINING

School	Name, City, State	Circle Last Year Completed	Degree		Major or Course of Study
			Yes	No	
High School		9 10 11 12			
College		1 2 3 4			
College		1 2 3 4			
Graduate School		1 2 3 4			
Business School		1 2 3 4			
Vocational School		1 2 3 4			

Professional Associations and Achievements (exclude those which indicate race, color, religion, sex, national origin):

Have you served in the U.S. Military Service?

☐ Yes☐ No

If yes, Branch: _____ Date: _____ to _____ Reason for leaving: _____

III. PROFESSIONAL LICENSE/CERTIFICATION DATA (if applicable)

Do you hold a professional registration/certification/license in Indiana? (does not apply to Driver's license)

☐ Yes☐ No

If yes, Type: _____ Expiration: _____ Reg./License Number: _____

Other states where registered: _____

Have you ever had any professional registration, licensure or certification suspended or revoked; ever informally resolved any recommendation or potential adverse (negative) action involving your registration, licensure, or certification or have any actions pending against you? ☐ Yes ☐ No If Yes, please explain _____

IV. CLERICAL/SPECIAL SKILLS (if applicable)

Typing

☐ Yes☐ No

Wpm: _____

Word Processing

☐ Yes☐ No

Transcription

☐ Yes☐ No

Wpm: _____

Data Entry

☐ Yes☐ No

List computer programs in which you are proficient: _____

V. PROFESSIONAL REFERENCES (Individuals who are familiar with your work background)

Do not list relatives or supervisors named on next page.

Name: _____ Position: _____ Years known: _____

Address: _____ City: _____ State: _____ Zip: _____

Business Phone: () _____ Email Address: _____ Residence Phone: () _____

Name: _____ Position: _____ Years known: _____

Address: _____ City: _____ State: _____ Zip: _____

Business Phone: () _____ Email Address: _____ Residence Phone: () _____

H. A. 3

VI. EXPERIENCE

Beginning with your current/most recent employment, please complete the section below in full. **The submittal of a resume does not replace the need to complete this section.**

Company: _____ Job Title: _____ From: _____ to _____
 (mo/yr) (mo/yr)
 Address: _____ City/State: _____ Zip: _____ Final Salary: _____
 Supervisor: _____ Phone Number: () _____ May we contact? _____
 Duties: _____ Name under which employed: _____
 Reason for leaving: _____ How much notice did you give upon resignation? _____

Company: _____ Job Title: _____ From: _____ to _____
 (mo/yr) (mo/yr)
 Address: _____ City/State: _____ Zip: _____ Final Salary: _____
 Supervisor: _____ Phone Number: () _____ May we contact? _____
 Duties: _____ Name under which employed: _____
 Reason for leaving: _____ How much notice did you give upon resignation? _____

Company: _____ Job Title: _____ From: _____ to _____
 (mo/yr) (mo/yr)
 Address: _____ City/State: _____ Zip: _____ Final Salary: _____
 Supervisor: _____ Phone Number: () _____ May we contact? _____
 Duties: _____ Name under which employed: _____
 Reason for leaving: _____ How much notice did you give upon resignation? _____

Company: _____ Job Title: _____ From: _____ to _____
 (mo/yr) (mo/yr)
 Address: _____ City/State: _____ Zip: _____ Final Salary: _____
 Supervisor: _____ Phone Number: () _____ May we contact? _____
 Duties: _____ Name under which employed: _____
 Reason for leaving: _____ How much notice did you give upon resignation? _____

NOTE: If you have additional work experience, please provide the information on a separate sheet of paper, as all work experience is needed.
The submittal of a resumé does not replace the need to complete this section.

To the best of your knowledge, has any action been taken against you that excludes or has excluded you from participation in any federal government health care program,

including Medicare? ☐ Yes ☐ No _____

Have you ever been named as a defendant in any civil legal action involving your professional competency or credibility? ☐ Yes ☐ No _____

If yes on either question above, please explain _____

(Continued on back page)

U.A. 4

VII. APPLICANT CERTIFICATION AND AGREEMENT

I certify that the information provided in the attached application is true and complete. I authorize an investigation of all statements contained in my application for employment and understand that any false or misleading statements or material omissions, whether intentional or unintentional, are cause for refusal to hire or separation of employment, if employed.

I hereby authorize former and present employers, except as I have otherwise indicated in writing, as well as physicians, medical personnel, references, schools, and others to provide or verify any information they have regarding me or my employment with them to an official representative of potential employer, and release them from any liability arising from the furnishing of any employment history or medical information to potential employer, at either party's option and will.

I authorize potential employer to make such investigations and inquiries of my educational, criminal record, and related matters as may be necessary in arriving at its employment decision.

I further agree and understand that except as governed by existing federal, state or local law where applicable, my employment or offer of employment establishes no guarantee or promise of continued employment or set hours of work or any other obligation on the part of potential employer beyond pay for actual work performed at the agreed upon rate and that the employment relationship may be terminated at any time, by myself or potential employer, at either parties' option and will.

If employed, I understand that my work schedule and assigned hours may change due to the needs of potential employer and agree to accept such changes as a condition of employment with these facilities.

I consent to physical and medical examinations as requested by potential employer.

I agree to familiarize myself with potential employer's policies and understand that policies may be established/amended as is necessary. I agree to protect the confidence and privacy of any and all information which pertains to the conduct of business. I understand that only the President or Administrator of potential employer may amend this agreement and that such amendment must be in writing and signed by the parties.

Print your name

Social Security #

Date

Your Signature

FOR HUMAN RESOURCES DEPARTMENT USE ONLY

Position _____ Department _____ EEO Origin _____

CC # _____ Emp # _____ Birth Date _____

Accepted Date _____ Start Date _____ Physical ☐ OccuMed ☐ Emp. Health ☐

Full time ☐ Part time ☐ Casual ☐ PRN ☐ Shift _____
(1.0-8 FTE) (7-2 FTE) (FTE)

Hourly Rate _____ Differential _____ Pay Grade _____

☐ Employed by more than one entity ☐ St. Mary's Entity Transfer

Replaces _____ Status: ☐ Exempt ☐ Non Exempt ☐ Temporary ☐ Rehire ☐ AH Transfer ☐ PTO II

Supervisor _____ General Orientation _____

Job Code # _____ PR# _____ One-on-One Orientation _____

☐ Graduating Student ☐ Paid Moving Expenses Recruiter _____ ☐ Closed in Invtage

Date Position Posted: _____ Original A H Hire Date _____

Competency Date: _____

Comments: _____

Health Care Institution B

H. B. 1

APPLICATION FOR EMPLOYMENT

Potential employees will receive full consideration without regard to race, Creed color, sex age, national origin, handicap or veteran status.

PERSONAL INFORMATION/WORK INTERESTS

Name _____ Today's Date _____

Former Last Name(s) You Were Known By _____

Street Address _____

City, State, ZIP _____ Social Security # _____

Home Telephone (_____) _____ Business Telephone (_____) _____

Have you ever applied for employment with us? ☐ Yes ☐ No If yes, when? _____

Have you ever worked for The Village before? ☐ Yes ☐ No If yes, when? _____

What encouraged you to apply here? ☐ Newspaper Ad ☐ Other _____

☐ Relative ☐ Friend ☐ Agency ☐ Employee Referral

Name of Employee: _____

Position Desired _____ Wage/Salary Expected _____

Do you agree to work any shift to which you are assigned? ☐ Yes ☐ No

If no, explain _____

Will you work Saturday and/or Sunday when your work schedule requires? ☐ Yes ☐ No

If no, explain _____

Availability ☐ Full-time ☐ Part-time ☐ Permanent ☐ Temporary

Are you legally eligible for employment in the United States? ☐ Yes ☐ No

When will you be available to begin work? _____

Other special training or skills (languages, machine operation, computer knowledge, clerical skills, etc.) _____

Have you ever been convicted of a felony (other than minor traffic violations)? ☐ Yes ☐ No

(Conviction will not necessarily disqualify an applicant from employment.)

If yes, list all convictions showing offense and date. _____

Have you ever been accused and found guilty of abusing, neglecting, or mistreating a resident/patient? (applicant is not obligated to disclose sealed or expunged records of conviction or arrest)

Yes ☐ No ☐

U. B. Z

EDUCATION AND TRAINING

NURSING LICENSE/CERTIFICATION	STATE OF CERTIFICATION OR LICENSE	CERTIFICATION OR LICENSE NUMBER
C.N.A.		
L.P.N.		
R.N.		

School	Name/Location of School	Course of Study	No. of Years Completed	Did you Graduate?	Degree or Diploma
Graduate				<input type="checkbox"/> Yes <input type="checkbox"/> No	
College				<input type="checkbox"/> Yes <input type="checkbox"/> No	
Business/Trade/Technical				<input type="checkbox"/> Yes <input type="checkbox"/> No	
High School				<input type="checkbox"/> Yes <input type="checkbox"/> No	

Do you now attend school?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If so, Where? _____
Do you plan to continue your education?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

EMPLOYMENT

Please give accurate, complete full-time and part-time employment record, Start with your present or most recent employer. Include military service.

1. Company Name _____	Telephone _____
Address _____	Employed (Month and Year) From _____ to _____
Name of Supervisor _____	Wages Start _____ Finish _____
Job Title _____	
Brief Job Description _____	Reason for leaving _____

H. B. 3

2. Company Name _____	Telephone _____
Address _____	Employed (Month and Year) From _____ to _____
Name of Supervisor _____	Wages Start _____ Finish _____
Job Title _____	
Brief Job Description _____	Reason for leaving _____

3. Company Name _____	Telephone _____
Address _____	Employed (Month and Year) From _____ to _____
Name of Supervisor _____	Wages Start _____ Finish _____
Job Title _____	
Brief Job Description _____	Reason for leaving _____

We may contact the employers listed above unless you indicate that you do not want us to contact them.

Do Not Contact (Employers Number) _____ Reason _____

NOTE TO APPLICANTS: DO NOT ANSWER THE FOLLOWING QUESTION UNLESS YOU HAVE BEEN INFORMED ABOUT THE REQUIREMENTS OF THE JOB(S) FOR WHICH YOU ARE APPLYING.

A description of the activities involved in such a job or occupation has been shown to you. Are you capable of performing in a reasonable manner the activities involved in the job or occupation for which you have applied?

Yes ☐ No ☐

Comments: _____

12.13.4

How many days have you missed from work in the past (2) two years for any reason? _____

Are you currently on "lay-off" status and subject to recall? ☐ Yes ☐ No

Are you aware of any conditions that would prevent you from performing the duties for which you are applying?

Yes ☐ No ☐ If yes, explain _____

WORK REFERENCES

(Do not include relatives or employers listed in the Employment section.)

Name and Address	Occupation	Years Known	Telephone
			()
			()
			()

SIGNATURE

The information provided in this Application for Employment is true, correct, and complete to the best of my knowledge.

I authorize investigation of all statements contained in this application as may be necessary in arriving at an employment decision. A health care worker criminal background check will be done also, which does not require my consent. In the event of employment, I understand that false or misleading information given on this application, or during my interview(s) may result in dismissal.

Testing of body fluids for illegal drugs is an integral part of employment for every staff member in providing our residents with quality care. This may be done randomly or when performance impairment is suspected. I authorize this testing to be done on me either by random selection or performance impairment suspicion.

I hereby understand and acknowledge that, unless otherwise defined by applicable law, any employment relationship with this organization is of an "at will" nature, which means that the Employee may resign at any time and the Employer may discharge an Employee at any time with or without cause. It is further understood that this "at will" employment relationship may not be changed by any written document or by conduct unless such change is specifically acknowledged in writing by an authorized executive of this organization.

Signature of Applicant

Date

H. B. 5

SUPPLEMENT TO APPLICATION FOR EMPLOYMENT

The following information may be answered on a voluntary basis and will be maintained in a separate confidential file from the application for employment. The Civil Rights Act of 1964 prohibits discrimination in employment because of race, color, religion, sex, or national origin. Federal law also prohibits discrimination based on age, citizenship, and disability.

Name _____	Today's Date _____
Position(s) applied for _____	
Social Security # _____	

Marital Status <input type="checkbox"/> Single <input type="checkbox"/> Engaged <input type="checkbox"/> Married <input type="checkbox"/> Separated <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed		Are you a Vietnam veteran? Yes <input type="checkbox"/> No <input type="checkbox"/>
What was your previous address? 		Are you a disabled Veteran?
How long at present address? Years _____ Months _____	How long at previous address? Years _____ Months _____	Are you a U.S. Citizen? <input type="checkbox"/> Yes <input type="checkbox"/> No
Are you over 18 years of age? <input type="checkbox"/> Yes <input type="checkbox"/> No If not, employment is subject to verification of age.		
State the names of relatives and friends working at 		

Health Care Institution C

H.C.1

Position applied for _____

Date: _____

Full Legal Name	LAST _____	FIRST _____	MI _____
Address	_____		
	CITY _____	STATE _____	ZIP _____
Phone	Home: (____) _____ - _____ Other (____) _____ - _____		
Email Address	_____		

Education

Highest Grade Completed: _____	High School Attended: _____	Graduated Y/N _____
Post High School _____	Name of College or University _____	Status or Degree _____
Post High School _____	Name of College or University _____	Status or Degree _____
Post High School _____	Name of College or University _____	Status or Degree _____
Certifications: _____		
Proficiencies/Skills: _____		

Professional Licenses

Currently Licensed	Eligible For License	License or Registration Ever Suspended, Revoked or on Probation? ____ Yes ____ No If YES Explain
Currently Registered	Eligible For Registration	
Type: _____	State: _____	
No: _____	Date: _____	

Professional Certifications

Currently Certified	
Eligible for Certification	
Type: _____	
State: _____	
Date: _____	

Professional Licenses

Currently Licensed	Eligible For License	License or Registration Ever Suspended, Revoked or on Probation? ____ Yes ____ No If YES Explain
Currently Registered	Eligible For Registration	
Type: _____	State: _____	
No: _____	Date: _____	

Professional Certifications

Currently Certified	
Eligible for Certification	
Type: _____	
State: _____	
Date: _____	

H. C. 2

Work Experience: List jobs beginning with your present or most recent employer

Employer		Duties:
Job Title		
Address		
Phone		
Hire Date	Leave Date	Reason for Leaving:
Salary Start	Salary End	

Employer		Duties:
Job Title		
Address		
Phone		
Hire Date	Leave Date	Reason for Leaving:
Salary Start	Salary End	

Employer		Duties:
Job Title		
Address		
Phone		
Hire Date	Leave Date	Reason for Leaving:
Salary Start	Salary End	

EOE

MISCELLANEOUSCheck which shift you will accept: ☐ Day ☐ Evening ☐ Night ☐ Rotating ☐ Weekends

Specify shift hours _____

Check which job status you would accept: ☐ Full-time ☐ Part-time ☐ PRNDo you have friends or relatives employed by Clay County Hospital? ☐ Yes ☐ No

If Yes please list _____

Have you ever been convicted for any violation(s) of law, NOT including moving traffic violations?

☐ Yes ☐ No

Description of offense: _____

(For additional convictions use plain paper. Include all information listed above)

H.C. 3

Where did you hear about this opening? _____

When will you be available to start work? _____
 (No date is necessary if you are available as soon as you give 2 (two) weeks' notice)

List three professional/work/school references who are not relatives

Reference 1	Last Name _____	First Name _____
	Relationship _____	Phone Number _____
	Address _____	City, State and Zip _____
Reference 2	Last Name _____	First Name _____
	Relationship _____	Phone Number _____
	Address _____	City, State and Zip _____
Reference 3	Last Name _____	First Name _____
	Relationship _____	Phone Number _____
	Address _____	City, State and Zip _____

PLEASE READ CAREFULLY

APPLICATION FORM WAIVER

I authorize investigation of all statements contained in this application. I understand that the misrepresentation or omission of facts called for is cause for dismissal at any time without any previous notice. I hereby give _____ Hospital permission to contact schools, previous employers (unless otherwise indicated), references, and others, and hereby release the _____ Hospital from any liability as a result of such contact.

I also understand that (1) _____ Hospital has a drug and alcohol policy that provides for preemployment testing as well as testing after employment; (2) consent to and compliance with such policy is a condition of my employment; and (3) continued employment is based on the successful passing of testing under such policy. I further understand that continued employment may be based on the successful passing of job-related physical examinations.

Hospital is a tobacco free campus.

Signature of applicant _____

Date: _____

This Company is an equal employment opportunity employer. We adhere to a policy of making employment decisions without regard to race, color, religion, sex, sexual orientation, national origin, citizenship, age or disability. We assure you that your opportunity for employment with this Company depends solely on your qualifications. Thank you for completing this application form and for your interest in _____ Hospital.


Health Care Institution D


H.D.1


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Job Detail

 To apply for this **Call Center RN**, position, click on [Complete Application](#).

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Job Title: Call Center RN
Job#:
Facility:
Location: Main Campus
Department: Call Center
Shift: D/E
Schedule: D/E, occ. Nights, approx 8 we/yr, 3 holidays
Hours per 2 week Pay Period: 72

Job Description:
 The Call Center RN is a registered nurse who is responsible for triaging incoming calls from clients, assessing needs, giving appropriate clinical options and facilitating referral to primary providers, specialists, healthcare facilities and community resources. This nurse will also educate the caller regarding immediate care advice and preventative behaviors. Collaborates with other providers and disciplines. Requires current licensure in the state of Indiana with a minimum of three years clinical experience in acute or ambulatory care services.

Contact Information

Enter your contact information. Remember to click **Save Changes** when you are finished.

* Last Name:
 * First Name:
 Middle Initial(s):
 Address 1:
 Address 2:
 City:
 State (ST):
 Zip/Postal Code:
 Email:
 Home Phone(###-###-####):
 Work Phone(###-###-####):
 Cell Phone(###-###-####):
 SSN (#####):

Professional Licenses and Certifications

Please enter any professional licenses and certifications which you currently hold or have recently held.

License/Certificate	Type	State Issued	Date Issued MM/DD/YY	Date Expires MM/DD/YY	Delete Item
1.			<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2.			<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3.			<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4.			<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
5.			<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

[Save and go to next section](#)

* = Required Field.

H.D.2

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Job Detail

Education

Please enter schools you have attended, degrees received, and your primary area of study.

Education 1

* School/City:

* Degree Received: - Select -

Major:

Years Completed: 2

☐ Delete this record

This section requires a minimum of 1 entry.

* = Required Field.

Save and go to next section

Education 2

* School/City:

* Degree Received: - Select -

Major:

Years Completed: - Select -

☐ Delete this record

This section requires a minimum of 1 entry.

* = Required Field.

Save and go to next section

Education 3

* School/City:

* Degree Received: - Select -

Major:

Years Completed: - Select -

☐ Delete this record

This section requires a minimum of 1 entry.

* = Required Field.

Save and go to next section

Education 4

* School/City:

* Degree Received: - Select -

Major:

Years Completed: - Select -

☐ Delete this record

This section requires a minimum of 1 entry.

* = Required Field.

Save and go to next section

Education 5

* School/City:

* Degree Received: - Select -

Major:

Years Completed: - Select -

☐ Delete this record

H.D. 3

Work History

Please enter your employment history, including your present employer. When you click Save Changes, entries will be sorted by the 'From' date with your most recent listed first.

Employer 1

* Employer:

City/State:

* Job Title:

Duties:

* From Date (MM/YY):

To Date (MM/YY):

(Leave blank if still employed)

* Beginning Salary:

Ending Salary:

Hours worked per week:

* Reason for leaving:

* Supervisor/Title:

Phone(###-###-####):

* May we contact this employer: Yes No

☐ Delete this record

* = Required Field.

Save and go to next section

Employer 2

* Employer:

City/State:

* Job Title:

Duties:

* From Date (MM/YY):

To Date (MM/YY):

(Leave blank if still employed)

* Beginning Salary:

Ending Salary:

Hours worked per week:

* Reason for leaving:

* Supervisor/Title:

Phone(###-###-####):

* May we contact this employer: Yes No

☐ Delete this record

* = Required Field.

Unemployment

Please account for all periods of unemployment of one month or more. When you click Save Changes, entries will be sorted by the 'To' date with your most recent listed first.

	* From MM/YY	To MM/YY	* Reason	Delete Item
1.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
4.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
5.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

* = Required Field.

Save and go to next section

Military Service

Please enter your military service information. Remember to click **Save Changes** when you are finished.

Branch of Service:

From (MM/YY):

To (MM/YY):

Rank at Discharge:

Are you a member of the Reserves? ☐ Yes ☐ No

Are you an active member? ☐ Yes ☐ No

Reserves Branch:

Nature of duties and special training received:

Awards and decorations:

11.0.4

Foreign Languages

Please list any foreign languages in which you are proficient and willing to use on the job. Remember to click **Save Changes** when you are finished.

	Foreign Language	Read	Write	Speak	Delete Item
1.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* = Required Field.

Relatives

Please list below any relatives currently working for:

Remember to click **Save Changes** when you are finished.

Relatives include all parents, step-parents, children, step-children, grandparents, brothers, sisters, step-brothers, step-sisters, aunts, uncles, cousins, and in-laws.

	Name of Relative	Relationship	Department	Delete Item
1.				<input type="checkbox"/>
2.				<input type="checkbox"/>
3.				<input type="checkbox"/>
4.				<input type="checkbox"/>
5.				<input type="checkbox"/>

* = Required Field.

Resume

Please paste a text version of your resume in the box below. Remember to click **Save Changes** when you are finished.

Resume Text:



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Related Questions

Please answer the following questions. Remember to click Save Changes when you are finished.

On what date are you available to start work (MM/DD/YYYY)?

Salary or Wage Expected [enter number only]: \$

Type of Employment Desired:
(click on all that apply)

- ☐ Full Time
☐ Part Time
☐ Supplement
☐ Temporary
☐ Day
☐ Evening
☐ Night
☐ Rotating
☐ 8 hr. shift
☐ 10 hr. shift
☐ 12 hr. shift
☐ Mix of shifts

If you plan to further your education,
please list when, where and the subject:* Are you age 18 or older? ☐ Yes ☒ NoPlease list any professional memberships
you have that are job related:* Has your professional license ever been suspended
or had disciplinary action in any state? ☐ Yes ☒ No

If yes please explain:

* Have you ever worked for a Deaconess Health
System entity or the former Welborn Clinic? ☐ Yes ☒ NoIf yes please enter name of Deaconess entity,
name you used while employed,
and your dates of employment:* Have you ever been excluded or are you currently
proposed for exclusion from participation in any
Federal health care program (EPLS/OIG-
Government & Healthcare Excluded Parties Lists): ☐ Yes ☒ No

If yes please explain:

In accordance with Indiana Code to be employed at a
health or hospital based health facility a person can not
have any of the following convictions on his/her record:
Rape; Murder; Voluntary Manslaughter; Criminal Deviate
Conduct; Exploitation of an Endangered Adult; Failure to

Voluntary Survey

We are an Equal Opportunity employer and do not discriminate on the basis of race, ancestry, color, religion, sex, age, marital status, sexual orientation, national origin, medical condition, disability, veteran status, or any other basis protected by law.

The information provided will be used for research, reporting, statistical purposes and to monitor legal compliance. To help us comply with these government requirements, please complete the following document.

Completion of this form is voluntary and will not affect your opportunity for employment or terms or conditions of employment if hired. We appreciate your cooperation.

The following definitions are as offered by the federal government.

Gender:

- ☐ Male
- ☐ Female
- ☐ I Choose Not to Respond

Ethnicity:

Are you Hispanic or Latino?

- ☐ No, not Hispanic or Latino.
- ☐ Yes, Hispanic or Latino.
A person of Cuban, Mexican, Puerto Rican, South or Central America, or other Spanish culture or origin, regardless of race.
- ☐ I Choose Not to Respond

Race:

If not Hispanic or Latino, please select one of the following race categories.

- ☐ White (Not Hispanic or Latino)
A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
- ☐ Black or African American (Not Hispanic or Latino)
A person having origins in any of the Black racial groups of Africa.
- ☐ Asian (Not Hispanic or Latino)
A person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian Subcontinent, including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, The Philippine Islands, Thailand, and Vietnam.
- ☐ Native Hawaiian or other Pacific Islander (Not Hispanic or Latino)
A person having origins in any of the peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- ☐ American Indian or Alaskan Native (Not Hispanic or Latino)
A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- ☐ Two or More Races (Not Hispanic or Latino)
- ☐ I Choose Not to Respond

H. D. 6

Health Care Institution E

Employment Application /

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H. E. 1

Application for Employment

We are an Equal Opportunity Employer. We do not discriminate on the basis of race, color, religion, sex, age, disability, sexual orientation, citizenship status or national origin or any other status protected by law or regulation. It is our intent that all qualified applicants be given equal opportunity and that selection decisions be based on job-related factors. In reading and answering the questions on this form, be aware that none of the questions are intended to imply illegal preferences or discrimination based upon non-job-related factors.

Please answer each question fully and accurately. If an item does not apply, write - N/A - This application will not be considered unless completed in full and all releases and authorizations signed. You may include additional information/responses if there is not enough room on this application. You must identify the specific position for which you are applying as this application applies only to that position.

Please print or type clearly. You must complete your own application.

PERSONAL INFORMATION

APPLICANT'S NAME (Last) (First) (M.I.)	
MAILING ADDRESS (Number) (Street)	
(City)	(County) (State) (Zip code)
EMAIL ADDRESS	WORK TELEPHONE NUMBER
POSITION FOR WHICH YOU ARE APPLYING	HOME TELEPHONE NUMBER
	CELLPHONE NUMBER
	DATE OF APPLICATION

FACILITIES FOR WHICH YOU ARE APPLYING (Check all applicable locations and specify which particular sites)

<input type="checkbox"/> County Jails	
<input type="checkbox"/> Department of Corrections	
<input type="checkbox"/> Youth Centers	
<input type="checkbox"/> County Jails	
<input type="checkbox"/> County Jails	
<input type="checkbox"/> County Jails	
<input type="checkbox"/> Other	
<input type="checkbox"/> Corporate Office	

ANSWER THE FOLLOWING QUESTIONS

1. If you are offered and accept a job, can you provide proof of your legal right to work in the US? Y ☐ N ☐
2. Upon employment employees must submit legal proof of age. Can you furnish proof of age? Y ☐ N ☐
3. Have you ever: (If you answer YES, give details in item 9)
 - Been dismissed or fired from a position for any reason? Y ☐ N ☐
 - Resigned or quit a position while under investigation or after being informed discipline would be taken against you or during an appeal from a disciplinary action? Y ☐ N ☐
 - Been rejected or told you would not receive permanent or continued employment during any type of probationary or trial position on the job? Y ☐ N ☐
4. Have you ever been convicted by any court of any law violation other than minor traffic violations? Y ☐ N ☐
5. Have you ever previously applied at a _____ affiliated company? Y ☐ N ☐
6. Have you ever been previously employed by a Correctional Healthcare Companies affiliated company? Y ☐ N ☐
7. If employed, do you expect to be engaged in any additional business or employment outside of our job? Y ☐ N ☐
8. Are you related to anyone employed by _____ Management? Y ☐ N ☐

9. EXPLANATIONS:

* Conviction of a crime is not an automatic bar to employment. All circumstances will be considered.

EMPLOYMENT HISTORY Begin with your most recent or current job. List each job separately.

Employment Application /

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H. E. 3

HOURS PER WEEK	COMPANY NAME	TELEPHONE NUMBER
SALARY EARNED PER	SUPERVISOR	ADDRESS (City) (State) (Zip code)
DUTIES PERFORMED		
REASON FOR LEAVING		MAY WE CONTACT THIS EMPLOYER FOR A RE <input type="radio"/> Y <input type="radio"/> N If NO, please state reason:

IMPORTANT -- PLEASE READ BEFORE SIGNING -- If not signed, this application may be rejected.

The facts set forth above are true and complete. I hereby authorize investigation of all statements contained in this application and full disclosure of my prior education and work records. I understand that employment is contingent upon this investigation and, if employed, false or misleading statements in this application shall be considered sufficient cause of dismissal.

I also agree that I will voluntarily submit to drug screening. I acknowledge that a positive drug test is sufficient reason to terminate employment or for a refusal to hire.

I hereby release Companies and its subsidiary companies and any prior employer, school, including their agents, employees, representatives or attorneys, from all liability which may arise from the providing or use of any personal, employment or school references, and from any obligation to provide me with written notification of such disclosure. I understand that this may include a record of disciplinary action assessed by previous employers or schools. I also understand that, if employed, I will initially be placed on probationary status. Further, I release Companies, including its agents, employees, representatives and attorneys from all liability relating in any way to the drug screening process.

I recognize that this application is not an offer to enter into a contract or a contract for employment nor guarantee employment for any definite period of time. I further recognize and agree that if I am employed by Companies or its subsidiary companies, such employment will not result in a contract for employment and that Companies or its subsidiary companies may terminate my employment at any time for any reason. I further recognize that nothing contained in any documents published by Companies or its subsidiary companies shall in any way modify the above terms, and acknowledge that there are terms that cannot be modified in any way by any oral or written representation made by anyone employed by Companies, except in writing signed by the CEO or COO of Companies.

Date: _____ Signature: _____

AUTHORIZATION AND RELEASE -- If not signed, this application may be rejected.

I agree, to consider me for possible employment, that an agent of _____, Companies or its subsidiary companies may make a full investigation of my background as part of its pre-employment process.

To the fullest extent permitted by law, I authorize representatives of _____ or its subsidiary companies to make an inquiry of: former employers, all education institutions attended, all personal and business references, courts, government and state and federal law enforcement agencies. I further authorize Companies, its subsidiary companies or its agents to receive from such person, institutions or corporations information including, but not limited to, education transcripts, work histories, conviction records and other similar information.

I further release both _____ Companies, its subsidiary companies, their agents and the persons, institutions or corporations providing references or background information, including their officers, directors, agents, attorneys and employees from any and all liability, causes of action, claims or demands of any kind, including, but not limited to, claims of invasion of privacy, defamation and failure to hire, arising out of or in connection with the authorization given herein.

I agree that a photocopy of this authorization and release may be considered valid as an original.

Date: _____ Signature: _____

FAIR CREDIT REPORTING ACT DISCLOSURE

By this document, _____ Companies and its subsidiary companies discloses to you that a consumer report, including an investigative consumer report, which may contain information as to your credit, character, general reputation, personal characteristics, and mode of living, may be obtained for employment purposes as part of the pre-employment background investigation and at any time during your employment. Should an investigative consumer report be requested, you will have the right to demand a complete and accurate disclosure of the nature and scope of the investigation requested and a written summary of your rights under the Fair Credit Reporting Act. By your signature below, you acknowledge receipt of the foregoing disclosure and authorize _____ Companies or its subsidiary companies to obtain and use consumer reports and/or investigative consumer reports about you.

APPLICANT

DATE

Employment Application /

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H. E. 4

DATE

Page 3

Equal Employment Opportunity**APPLICANT CHARACTERISTIC SURVEY**

It is the policy of _____, LTD to hire well-qualified people to perform the tasks necessary to provide high quality service. An integral part of this policy is to provide equal employment opportunity for all persons without discrimination on the basis of race, sex, color, religion, national origin, ancestry, disability unrelated to the bona fide occupational qualification of the position, veteran status, sexual orientation, marital status or age. To help us monitor the progress of _____'s Affirmative Action Program and to ensure compliance with the Illinois Human Rights Act and Section 19 of the Peoria County Purchasing Ordinance, we request your cooperation in providing the following information.

Your answers will not affect your consideration for employment with _____, LTD and will be kept separate from your employment application prior to any review and will be kept confidential in accordance with applicable laws. Completing this survey is optional. Applicants who prefer not to answer the questions in this survey will not be subject to adverse treatment. Thank you for your cooperation.

Please mark only one answer for each category

GENDER <input type="radio"/> Male <input type="radio"/> Female	AGE <input type="radio"/> Under 21 <input type="radio"/> 21-39 <input type="radio"/> 40-69 <input type="radio"/> 70 AND OVER
HIGHEST LEVEL OF EDUCATION <input type="radio"/> Some High School <input type="radio"/> High School Diploma/GED <input type="radio"/> Vocational /Trade School <input type="radio"/> Business School <input type="radio"/> Some College <input type="radio"/> Associate's Degree <input type="radio"/> Bachelor's Degree <input type="radio"/> Master's Degree <input type="radio"/> Doctoral Degree <input type="radio"/> Post Doctorate	
ETHNIC CATEGORY (Please check the box that best describes your race/ethnicity) <input type="radio"/> Black - Persons having origins in any of the black racial groups of Africa. <input type="radio"/> White - Persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. <input type="radio"/> Hispanic - Persons of Mexican, Puerto Rican, Cuban, Central or South American, or Spanish Culture or origin, regardless of race. <input type="radio"/> American Indian or Alaskan Native (Not Hispanic or Latino) - Persons having origins in any of the original peoples of North and South America (including Central America) and who maintain tribal affiliation or community attachment. <input type="radio"/> Native Hawaiian or Other Pacific Islander (Not Hispanic or Latino) - A person having origins in any of the peoples of Hawaii, Guam, Samoa, or other Pacific Islands. <input type="radio"/> Other (Specify) _____	
DISABILITY A person with a disability is an individual who: (1) has a physical or mental impairment that substantially limits one or more life activities, such as walking, speaking, breathing, performing manual tasks, seeing, hearing, learning, caring for oneself; (2) has a record of such an impairment; (3) is regarded as having such an impairment. Do you consider yourself to be disabled? <input type="radio"/> Yes <input type="radio"/> No	
MILITARY <input type="radio"/> Not a Veteran <input type="radio"/> A widow or widower of a veteran <input type="radio"/> Vietnam era veteran <input type="radio"/> Korean war veteran <input type="radio"/> World War II veteran <input type="radio"/> Other veteran (please specify) _____	
REFERRAL SOURCE <input type="radio"/> Community Agency <input type="radio"/> State Employment Service <input type="radio"/> Newspaper (please identify) _____ <input type="radio"/> School Placement Office (please identify) _____ <input type="radio"/> Friend <input type="radio"/> Health Professionals Employee <input type="radio"/> Federal Agency <input type="radio"/> Magazine Advertisement (please identify) _____ <input type="radio"/> Professional Association (please identify) _____	

Employment Application /

Page 5 of 5

H.E.S

☐ Internet (please identify site)☐ Other (please identify)

Press the second button to retain all of the information in your first submission in case you'd like to submit multiple applications.

Submit Application

Submit This Application and then Another

Health Care Institution F

H. F. 1

APPLICATION FOR EMPLOYMENT

Name _____ Soc. Sec. # _____

Address _____ Phone _____

City/State/Zip _____ Cell Phone _____

E-mail Address _____

Position _____ Expected Salary _____

Would you accept full-time? ☐ Yes ☐ No Part-time? ☐ Yes ☐ No Position Desired _____

How did you hear about the position? (What source?) _____

Special skills or training (languages, machine operation, etc.) that would be of benefit on the job for which you are applying. _____

Has your professional license ever been investigated, disciplined and/or suspended by any state's Professional License Board?
☐ Yes ☐ No ☐ N/A If yes, describe _____

Are you legally eligible for employment in the United States? ☐ Yes ☐ No (if yes, proof is required)

Are you of legal age to work in the United States? ☐ Yes ☐ No

Have you ever been convicted of a crime including traffic violation? ☐ Yes ☐ No If yes, describe _____

Have you ever been charged and/or convicted of a misdemeanor or felony? ☐ Yes ☐ No If yes, describe _____

Do you have an open or closed criminal record file? ☐ Yes ☐ No If yes, describe _____

Drivers License # _____ Expiration Date: _____

EDUCATIONAL BACKGROUND

School	Name and location of school	Course of study	Did you graduate	Degree or diploma / Year
Grammar School			<input type="checkbox"/> Yes <input type="checkbox"/> No	
High School			<input type="checkbox"/> Yes <input type="checkbox"/> No	
College			<input type="checkbox"/> Yes <input type="checkbox"/> No	
Other			<input type="checkbox"/> Yes <input type="checkbox"/> No	
Graduate School			<input type="checkbox"/> Yes <input type="checkbox"/> No	
Vocational			<input type="checkbox"/> Yes <input type="checkbox"/> No	

PERSONAL REFERENCES (must include at least one former supervisor and family members will not be accepted)

1. Name _____ Supervisor _____

Home Phone (_____) _____ Cell Phone (_____) _____ Years Known _____

H. F. Z

2. Name _____ Relationship _____

Home Phone () _____ Cell Phone () _____ Years Known _____

3. Name _____ Relationship _____

Home Phone () _____ Cell Phone () _____ Years Known _____

List any relatives currently employed at _____ HealthCare, Inc. _____

Have you applied for any position with _____ Health Care in the past? ☐ Yes ☐ No (If yes-when) _____**PREVIOUS EMPLOYMENT**

1. Employer _____ Address _____

Telephone _____

Position _____ Supervisor _____

Dates of Employment: From _____ To _____ Salary _____

Work performed _____

2. Employer _____ Address _____

Telephone _____

Position _____ Supervisor _____

Dates of Employment: From _____ To _____ Salary _____

Work performed _____

3. Employer _____ Address _____

Telephone _____

Position _____ Supervisor _____

Dates of Employment: From _____ To _____ Salary _____

Work performed _____

May we contact your current employer? ☐ Yes ☐ No

APPLICANT CERTIFICATION: I certify that all information submitted throughout the application process is complete and true to the best of my knowledge. I understand that if employed by _____ Inc. any falsified statement on this application may be grounds for dismissal. I authorize the investigation of all statements contained herein, as well as checking criminal conviction information, consumer reports which may contain public record reporting such as credit, criminal and driving record, educational background, workers compensation claims and other in the state of Illinois and Missouri and references on my prior employment history and personal references listed. I release all parties from any and all liability for damages or claims, which may result from providing this information.

Applicant Signature _____

Date _____

_____ provides service to all persons without regard to race color, national origin, disability, or age in compliance with 45 CFR Parts 80, 84, and 91; and Section 504 of the Rehabilitation Act respectively.

H. P. S.

APPLICATION VERIFICATION FORM

I CERTIFY THAT THE FACTS CONTAINED IN THIS APPLICATION ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND I UNDERSTAND THAT, IF EMPLOYED, FALSIFIED STATEMENTS ON THIS APPLICATION SHALL BE GROUNDS FOR DISMISSAL, I AUTHORIZE INVESTIGATION OF ALL STATEMENTS CONTAINED HEREIN AND THE REFERENCES LISTED ABOVE TO GIVE OUT ALL INFORMATION CONCERNING MY FORMER EMPLOYMENT AND ANY OTHER PERTINENT INFORMATION THAT YOU OR THEY DEEM NECESSARY. I RELEASE ALL PARTIES FROM ALL LIABILITY FOR ANY DAMAGE THAT MAY RESULT FROM FURNISHING SAME TO YOU.

I UNDERSTAND AND AGREE THAT IF HIRED, MY EMPLOYMENT IS FOR NO DEFINITE PERIOD AND MAY, REGARDLESS OF THE RATE OF PAYMENT OF MY WAGES AND SALARY, BE TERMINATED AT ANY TIME WITHOUT ANY PRIOR NOTICE. I SUBJECT MYSELF TO ALL RULES AND REGULATIONS OF THIS ORGANIZATION. FAILURE TO DO SUCH COULD RESULT IN MY DISMISSAL.

EMPLOYEE SIGNATURE

DATE

WITNESS

DATE

H. F. 4

REFERENCE REQUEST

DATE _____

This form can be mailed, or used as document for a telephone reference.

Applicant to complete to the double line.

REFERENCE NAME _____

FACILITY NAME _____

TELEPHONE: AC: (____) _____

I have applied to _____ for a position as a _____. I authorize you to respond to the questions below so they may act on my application. I release you from all liability in supplying this information regarding my employment with you.

Applicant's Signature _____

Print Applicant's Name _____

I worked for you from _____ to _____ as a _____.

To be completed by former employer or by agency representative during a telephone reference.

Would you rehire? Yes _____ No _____. Is the above information correct? Yes _____ If not, please explain. _____

	Excellent	Very Good	Good	Poor
Job Skill				
Job Knowledge				
Initiative				
Attendance				
Ability to Work with Others				
Judgment				
Honesty				
Ability to Accept Direction				
Grooming and Appearance				
Time Management				

Comments _____

Signature _____ Signature _____
 Agency representative Former employer
 Title _____ Title _____

APPENDIX J

MANUFACTURING INSTITUTIONS JOB APPLICATIONS

Manufacturing Institution A

Job Application

M. A. 1
Page 1 of 7

Application For Employment

WE ARE AN EQUAL OPPORTUNITY EMPLOYER

We consider applicants for all positions without regard to race, color, religion, creed, gender, national origin, age, disability, marital or veteran status, sexual orientation, or any other legally protected status. This application for employment shall be considered active for a period of time not to exceed 6 months. Any applicant wishing to be considered for employment beyond this time period should reapply.

All fields preceded by > are required to be filled in before submitting an application

Last Name > <input type="text"/>	First Name > <input type="text"/>	Middle Initial > <input type="text"/>	<input type="text"/>
Current Address		Permanent Address (if different than current)	
Street > <input type="text"/>	<input type="text"/>	Street <input type="text"/>	<input type="text"/>
Apartment <input type="text"/>	<input type="text"/>	Apartment <input type="text"/>	<input type="text"/>
City > <input type="text"/>	<input type="text"/>	City <input type="text"/>	<input type="text"/>
State > <input type="text"/>	<input type="text"/>	State <input type="text"/>	<input type="text"/>
Zip > <input type="text"/>	<input type="text"/>	Zip <input type="text"/>	<input type="text"/>
Telephone Number(s) > <input type="text"/>	<input type="text"/>	Telephone Number(s) <input type="text"/>	<input type="text"/>

May we respond to you via e-mail? ☐ Yes ☐ No If yes, e-mail address:

General Information

Position(s) Applying For > Select... Automation Printing Technician Production- Packer/Operator *Please limit your selections to 4 positions *Hold down CTRL key to select multiple positions Other unlisted position: <input type="text"/>	Date of Application Attach Resume <input type="text"/> <input type="button" value="Browse..."/> Expected Wage (Please enter a numeric value.) <input type="text"/>
Applying to Location(s) > <input type="text"/>	
How Did You Learn About Us? <input type="checkbox"/> Print Advertisement <input type="checkbox"/> Radio Advertisement <input type="checkbox"/> Employment Agency <input type="checkbox"/> Friend <input type="checkbox"/> Relative <input type="checkbox"/> Employment Office	

Job Application

Page 2 of 7

MA. 2

Other:

List Names of Company personnel whom you know and/or were referred by: (Please limit yourself to 150 characters.)

List Names/Relationships of Relatives Employed by : (Please limit yourself to 150 characters.)

Position Desired: > ☐ Full Time ☐ Part Time ☐ Temporary ☐ Seasonal ☐ Weekend Only

Are you able to work any shift?

Shift Preference Order, Please enter 1,2 and 3 next to the following:

> 1st Shift 2nd Shift 3rd Shift > ☐ Yes ☐ No

Are you at least 18 years old?

> ☐ Yes ☐ No

Have you ever filed an application with us before?

If Yes, give date: > ☐ Yes ☐ No

Have you ever been employed with us before?

If Yes, give date: If Yes and under a different Name, give name: > ☐ Yes ☐ No

Is there any reason that you cannot attend work regularly?

If Yes, explain: > ☐ Yes ☐ No

Many of our job openings require regular lifting, bending, stooping, moving, and standing. Please describe any adjustments we need to make for you to be able to complete the primary functions of the job for which you are applying. (Please limit yourself to 150 characters.)

Are you currently employed?

> ☐ Yes ☐ No

May we contact your present employer?

> ☐ Yes ☐ No

Are you prevented from lawfully becoming employed in this country because of Visa or Immigration Status?

*Proof of citizenship or immigration status will be required upon employment.

> ☐ Yes ☐ NoOn what date will you be available for work? >

Are you currently on "lay-off" status and subject to recall?

> ☐ Yes ☐ No

Have you ever been convicted of a felony?

> ☐ Yes ☐ No

If Yes, please explain: (Please limit yourself to 150 characters.)

Select those skills listed below that you have experience in.

☐ Electrical ☐ Fork Lift ☐ Hydraulics ☐ Management/Supervision ☐ Problem Solving ☐ Production

Describe any specialized training or skills as they relate to the position applied for.
(Please limit yourself to 150 characters.)

Education	Name and Address of School	Course of Study	Diploma Degree	Graduated
High School or GED	N: <input type="text"/> A: <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No
Vocational/Trade School	N: <input type="text"/> A: <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No
College/University	N: <input type="text"/> A: <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No

Describe any specialized training, apprenticeship, skills, and extra-curricular activities.
(Please limit yourself to 150 characters.)

▼ Employment Experience

Start with your present or most recent job. Include any job-related military service assignments and volunteer activities. Explain in detail any gaps in employment.

1.					
Employer <input type="text"/>	Dates Employed (Format MM-DD-YY)				
Address <input type="text"/>	<table border="1"> <tr> <td>From <input type="text"/></td> <td>To <input type="text"/></td> </tr> <tr> <td colspan="2">If currently employed enter today's date.</td> </tr> </table>	From <input type="text"/>	To <input type="text"/>	If currently employed enter today's date.	
From <input type="text"/>	To <input type="text"/>				
If currently employed enter today's date.					
Supervisor's Name <input type="text"/>					
Telephone Number(s) <input type="text"/>					
Last Position Held <input type="text"/>	Hourly Rate/Salary <input type="text"/>				

Job Application

Page 4 of 7

M.A.4

Reason For Leaving	Starting	Final
Work Performed (Please limit yourself to 150 characters.)		
2.		
Employer	Dates Employed (Format MM-DD-YY)	
Address	From	To
Supervisor's Name		
Telephone Number(s)		
Last Position Held	Hourly Rate/Salary	
Reason For Leaving	Starting	Final
Work Performed (Please limit yourself to 150 characters.)		
3.		
Employer	Dates Employed (Format MM-DD-YY)	
Address	From	To
Supervisor's Name		
Telephone Number(s)		
Last Position Held	Hourly Rate/Salary	
Reason For Leaving	Starting	Final
Work Performed (Please limit yourself to 150 characters.)		

Page 5 of 7

M.A.S

4.		
Employer	Dates Employed (Format MM-DD-YY)	
Address	From	To
Supervisor's Name		
Telephone Number(s)		
Last Position Held	Hourly Rate/Salary	
Reason For Leaving	Starting	Final
Work Performed (Please limit yourself to 150 characters.)		
If you need additional space, please continue here. (Please limit yourself to 350 characters.)		

References (Include at least one work reference - Do not include relatives.)

1. Name	Phone Number
Address	Relationship
Company Name	
2. Name	Phone Number
Address	Relationship
Company Name	

Job Application

Page 6 of 7

M.A.C

3. Name	Phone Number
Address	
	Relationship
Company Name	

By placing a check mark in the boxes below, you are agreeing to the following statements.

> <input type="checkbox"/> Yes	I understand that as a condition of employment some locations require a physical examination and a drug/alcohol screen test. By marking the box to the left, I freely give my consent to such examinations and further understand that if I test positive for drugs and/or alcohol, I will not be considered for employment.
> <input type="checkbox"/> Yes	I certify that the facts contained in this application are true and complete to the best of my knowledge and understand that if employed, falsified statements on this application shall be grounds for dismissal.
> <input type="checkbox"/> Yes	I authorize the investigation of all statements contained herein and for my references and prior employers to release any and all pertinent information about me including that which is contained within my personnel file.
> <input type="checkbox"/> Yes	I understand and agree that, if hired, my employment is for no definite period of time, is not pursuant to any contract, either verbal or written, and that I will be an at-will employee.

These questions are completely voluntary and are in no way attached to my individual application. They will be maintained in a file, separate from my application, without reference to my name.

Gender:	<input type="radio"/> Male <input type="radio"/> Female	Ethnic Origin:	<input type="radio"/> 0) White (not Hispanic or Latino) <input type="radio"/> 1) Black or African American (not Hispanic or Latino) <input type="radio"/> 2) Asian (not Hispanic or Latino) <input type="radio"/> 3) American Indian or Alaska Native (not Hispanic or Latino) <input type="radio"/> 4) Hispanic or Latino <input type="radio"/> 5) Native Hawaiian or Other Pacific Islander (not Hispanic or Latino) <input type="radio"/> 6) Two or more races (not Hispanic or Latino)
---------	---	----------------	--

Manufacturing Institution B

APPLICATION FOR EMPLOYMENT

MSB 1

PERSONAL INFORMATION				TODAYS DATE:	
NAME <i>Last First Middle Maiden</i>					
CURRENT ADDRESS <i>Street City State Zip</i>					
PERMANENT ADDRESS					
E-MAIL ADDRESS				SOCIAL SECURITY # - -	
PHONE NUMBERS:		<i>Home</i>	<i>Work</i>	<i>Cellular</i>	
ARE YOU A U.S. CITIZEN OR ALIEN AUTHORIZED TO WORK IN THE U.S.? YES <input type="checkbox"/> NO <input type="checkbox"/>				ARE YOU 18 YEARS OR OLDER? YES <input type="checkbox"/> NO <input type="checkbox"/>	
IF AUTHORIZED ALIEN, WHAT TYPE OF VISA DO YOU HOLD:					
POSITION APPLYING FOR:		WHEN AVAILABLE:		EXPECTED SALARY: \$	
HOW DID YOU HEAR ABOUT THIS POSITION: Website <input type="checkbox"/> / Newspaper <input type="checkbox"/> / Referral <input type="checkbox"/> / Recruiter <input type="checkbox"/> / Other <input type="checkbox"/> (explain)					
ARE YOU EMPLOYED NOW? YES <input type="checkbox"/> NO <input type="checkbox"/> IF YES, MAY WE CONTACT YOUR CURRENT EMPLOYER? YES <input type="checkbox"/> NO <input type="checkbox"/>					
HAVE YOU EVER APPLIED TO THIS COMPANY BEFORE? YES <input type="checkbox"/> NO <input type="checkbox"/> IF YES, WHERE? WHEN ?					
HAVE YOU BEEN CONVICTED OF A FELONY WITHIN THE LAST 7 YEARS? YES <input type="checkbox"/> NO <input type="checkbox"/> IF YES (explain): (Conviction will not necessarily disqualify applicant from employment)					
EDUCATION / TRAINING	NAME OF SCHOOL CITY AND STATE	# OF YEARS ATTENDED	DID YOU GRADUATE?	IF YES, WHAT YEAR?	MAJOR OR SUBJECTS STUDIED
HIGH SCHOOL				NOT REQUIRED	
COLLEGE - UNDERGRADUATE					
COLLEGE - GRADUATE					
TRADE, BUSINESS OR CORRESPONDENCE SCHOOL					
U.S. NAVAL / MILITARY SERVICE BRANCH:			RANK:	ARE YOU AN ACTIVE MEMBER IN THE NATIONAL GUARD OR RESERVES? YES <input type="checkbox"/> NO <input type="checkbox"/>	
EMPLOYMENT HISTORY LIST YOUR LAST 3 EMPLOYERS, BEGINNING WITH THE MOST RECENT					
DATE: MONTH / YEAR	NAME OF EMPLOYER CITY AND STATE	POSITION	SALARY	REASON FOR LEAVING	
FROM:					
TO:					
FROM:					
TO:					
FROM:					
TO:					

Form #HRM-204a.doc

Page 1 of 3

M. B. 2

SUMMARIZE SPECIAL JOB-RELATED SKILLS / QUALIFICATIONS YOU ACQUIRED FROM PREVIOUS EMPLOYMENT / EXPERIENCES:				
STATE ANY ADDITIONAL INFORMATION YOU FEEL MAY BE HELPFUL TO US IN CONSIDERING YOUR APPLICATION:				
PROFESSIONAL REFERENCES				
NAME OF CONTACT	NAME OF COMPANY	POSITION	CONTACT PHONE #	YEARS KNOWN
IN CASE OF EMERGENCY NOTIFY				
NAME	RELATIONSHIP	ADDRESS	PHONE #	

By my signature below, I acknowledge that my employment with _____ is contingent on my consent to take any and all physical, medical, and/or median nerve examinations, including blood, urine and/or other tests for alcohol, drugs, and/or controlled substances at any time and as required by my employer, _____ its agents, directors, officers and management staff. Furthermore, I voluntarily and knowingly give my consent for the release of the test results and other relevant medical information to _____ for review and appropriate action. I understand that if I am employed, I may be subject to disciplinary action including dismissal for refusal to comply with such testing and/or if the results of my test are found to be positive (the presence of alcohol, illegal drugs, and/or controlled substances).

Any ideas, inventions or improvements made or conceived by me during my employment with _____ its subsidiary's and joint venture partners relating to _____ activities, or work I perform for _____ shall be the sole property of _____. I will execute all papers necessary to vest title thereto in _____ of its nominee(s) in the United States and foreign countries.

I certify that the facts contained in this application are true and complete to the best of my knowledge and understand that, if employed, falsified statements on this application shall be grounds for dismissal. I also authorize investigation of the truth of all statements contained in this application by _____ and release _____ from all liability for any damage that may result from investigating such information. By my signature below, I understand that all employment with _____ is employment "at will". This means that employment with _____ including any current or future work assignments, may be terminated with or without notice and with or without cause. Further, in no event shall hiring or placement with _____ be considered a contract of employment.

SIGNATURE OF APPLICANT

DATE

IS AN EQUAL OPPORTUNITY EMPLOYER AND DOES NOT DISCRIMINATE ON THE BASIS OF AGE, SEX, RACE, COLOR, NATIONAL ORIGIN, RELIGION, CREED, POLITICAL AFFILIATION, BELIEF, OR DISABILITY.

MB.3

AUTHORIZATION FOR RELEASE OF EMPLOYMENT INFORMATION

I understand that, without an executed Authorization for Release of Employment Information, my previous employers may not release information from personnel file other than to verify employment, dates of employment, position(s) held and rate(s) of pay.

I hereby authorize the release of any information regarding my previous employment to Inc. I understand the information which may be released would include, but would not necessarily be limited to, my earnings record, dates of employment, attendance, disciplinary record, performance evaluations, separation data, physical examination and such other personnel documents which may be found in the company's records regarding my employment.

I hereby expressly release any organization and its agents from any and all liability whatsoever arising out of the release of information concerning my employment with the company.

Signature of Applicant_____
Social Security Number_____
Date

Manufacturing Institution C

M.C. 1

DCN HR-0001
Rev. 01
Date 1/30/06

Occupation Preference _____

Date _____

Name: Last _____

First _____

M.I. _____

APPLICATION FOR EMPLOYMENT

AN EQUAL OPPORTUNITY EMPLOYER

Instructions to Applicant

1. Fill out all information, including the information at top of page.
2. Filling out an application does not imply that you will be interviewed or hired, but that you will be considered for vacancies based upon the stated Occupational Preferences or other suitable positions identified when vacancies exist.
3. Applications are considered active for one year unless renewed by you.

Address: _____
Street City / State Zip

Phone: (____) _____ Social Security No. _____

Are you 18 years or older? ____ YES ____ NO

Date you can start _____ Salary Desired _____

Who Referred you to this Company? _____

____ Employment Agency ____ Newspaper Ad ____ State Employment Office

____ Friend ____ Walk In ____ Other

SCHOOL LEVEL	NAME AND LOCATION	YEARS COMPLETED	DID YOU GRADUATE?	SUBJECTS STUDIED
GRAMMAR SCHOOL				
HIGH SCHOOL				
COLLEGE				
OTHER				

Special Skills / Training: _____

M.C. 2

DCN HR-0001
Rev. 01

Employment History---

List below your previous three employers, beginning with your most recent or present employer.

Present Employer			
Address		City	State Zip
Employment Dates (Include month and Year)	Job Title	Starting Salary	Final Salary
May we contact your Supervisor? ____ YES ____ NO	Name of Supervisor / Title		Phone
Reason for Leaving			

Previous Employer			
Address		City	State Zip
Employment Dates (Include month and Year)	Job Title	Starting Salary	Final Salary
May we contact your Supervisor? ____ YES ____ NO	Name of Supervisor / Title		Phone
Reason for Leaving			

Previous Employer			
Address		City	State Zip
Employment Dates (Include month and Year)	Job Title	Starting Salary	Final Salary
May we contact your Supervisor? ____ YES ____ NO	Name of Supervisor / Title		Phone
Reason for Leaving			

M. C. 3

DCN HR-0001

Rev. 01

Date 1/30/06

REFERENCES: List three persons, other than relatives, that have known you for at least five years.

NAME	ADDRESS	TITLE	PHONE

SERVICE RECORD

Branch of Service	Discharge Date / Rank

Have you ever applied to this company before? ☐ YES ☐ NO

Have you ever worked for this company before? ☐ YES ☐ NO

If so, When _____ Reason for leaving _____

Do you have any relatives employed by _____ Corp? ☐ YES ☐ NO

If Yes, Give Name _____

Will you work Overtime? ☐ YES ☐ NO

Have you ever been convicted of a felony? ☐ YES ☐ NO (Conviction does not necessarily disqualify an applicant for employment.)

If YES, please explain: _____

Explain how your background makes you appropriate for the occupational preference to which you are applying.

M. C. 4

DCN HR-0001
Rev. 01
Date 1/30/06

AUTHORIZATION:

I certify that the facts contained in this application are true and complete to the best of my knowledge and understand that material omissions or falsified statements on this application shall be grounds for refusal to hire or dismissal, if employed.

I authorize investigation of all statements contained herein and the references and employers listed to give you any and all information concerning my previous employment and any pertinent information they may have, personal or otherwise and release them from all liability for any damage that may result from furnishing or utilization of such information.

I further agree and understand that except as governed by existing federal, state, or local law, where applicable my employment establishes no guarantee or promise of continued employment or set hours of work or any other obligation on the part of Corp. beyond pay for actual work performed at the agreed upon rate and that the employment relationship may be terminated at any time, by myself or Corp., at either parties option and will.

I understand that the needs of Corp. may require that I be assigned increased hours, decreased hours, shift work, overtime work, weekend work, rotating shifts or other work schedule arrangements or changes in my work schedule or hours and I hereby agree to accept any such work schedule or hours or any such changes in work schedule or hours as a condition of employment.

I will familiarize myself with the policies of Corp. and I understand that from time to time new ones may be established or existing ones amended. I agree to protect the confidence and privacy of any and all information, which pertains to the conduct of Corp.'s business. I understand that only the president of Corp. may amend this Agreement and that such amendment must be in writing and signed and dated by both parties.

Signature

Date

Manufacturing Institution D

Please note the following:

- The online application form consists of
- Mandatory fields are marked with an asterisk *.
- You will be able to add attachments, once you have completed the form. (Resume, etc.).
- Please read our [data security](#) information.

Application	
For job opening	General Openings
Personal data	
Salutation	Please choose ▼
Last name *	<input type="text"/>
First name *	<input type="text"/>
Address *	<input type="text"/>
City * / State * / Zip *	<input type="text"/>
Country *	Please choose ▼
Home Telephone No. *	<input type="text"/>
Alternate Telephone No.	<input type="text"/>
Email-address *	<input type="text"/>
	<input type="radio"/> I do not have an email-address <input checked="" type="radio"/> I do have an email-address
Are you authorized to work in the US? *	<input type="radio"/> yes <input type="radio"/> no (Please note that OPT is not work authorization, it is Practical Training)
Internal applicant	<input type="radio"/> yes <input checked="" type="radio"/> no
Referred by	<input type="radio"/> yes <input checked="" type="radio"/> no

online-application

Page 1 of 1

M.D. 2

Application

For job opening

General Openings

Educational background

Degree *

Please choose

Major *

Please choose

GPA

School name *

Comment

Add

Employer history

Employer *

From *

/ / (MM/YYYY) - / / (MM/YYYY)

Primary responsibilities *

Add

Additional qualifications / special skills

Qualification / skill

Comment

Add

Language skills

Please choose

Please choose

Add

Conviction of crimes

Have you ever been convicted of a crime other than a minor traffic violation? If yes, please explain in the box below. (A "yes" answer to this question does not necessarily preclude consideration for employment)

Convicted of a crime: *

yes ☐ no ☐

Comment:

online-application

Page 1 of 1

M. D. 3

Application

For job opening

General Openings

Voluntary EEO Identification

Various agencies of the United States Government require employers to maintain information on applicants pertaining to factors such as race, sex, and type of position for which an individual applies. The information requested on this sheet is for compliance with certain record keeping requirements. The company believes all persons are entitled to equal employment opportunities and does not discriminate against its employees or applicants for employment because of race, color, sex, religion, national origin, disability, veteran status, age, marital status, or any other protected group status.

Completion of this form is entirely voluntary. All information submitted will remain confidential and will not affect your application for employment.

Sex

Sex male ☐ female ☐

Race / ethnic data

(Please choose from the following options)

Asian ☐
 Black / African-American (Non-Hispanic) ☐
 Native Hawaiian/Other Pacific Islander ☐
 Two or more races (not Hispanic or Latino) ☐
 American Indian or Alaskan Native ☐
 Hispanic or Latino ☐
 White (Non-Hispanic) ☐

Disabled / Veteran Classification(s)

Regulations issued by the U.S. Department of Labor with respect to disabled individuals, disabled veterans, and Vietnam Era veterans require that federal contractors provide an opportunity for self-identification of candidates seeking employment. Such self-identification is submitted on voluntary basis, on a confidential basis, for use only in accordance with regulations, without subjecting the individual to adverse treatment.

(Please choose from the following options)

Disabled person ☐
 Vietnam Era Veteran ☐
 Special Disabled Veteran (30% or more disability) ☐
 Your name (Last/First name) - voluntary

☐ I don't want to fill out the EEO form.

online-application

Page 1 of 2

M.D. 4

Application
For job opening

General Openings

Personal data

Name a a
 Address a
 City / State / Zip a, a a
 Country USA
 Home Telephone No. 2
 Alternate Telephone No. -
 Email-address
 US work authorization yes
 Internal applicant no
 Referred by no

Educational background
 Not specified

Employer history
 Not specified

Additional qualifications / special skills
 Not specified

Language skills
 Not specified

Conviction of crimes

Convicted of a crime no
 Comment -

Is there any other information you would like to provide to us regarding your background?

Not specified

Attachments
 File

Voluntary EEO Identification

Sex
 Race / ethnic data
 Asian
 Black / African-American (Non-Hispanic)
 Native Hawaiian/Other Pacific Islander
 Two or more races (not Hispanic or Latino)
 American Indian or Alaskan Native
 Hispanic or Latino
 White (Non-Hispanic)
 Disabled / Veteran Classification(s)

online-application

Page 2 of 2

M. D. S

Disabled person -
Vietnam Era Veteran -
Special Disabled Veteran (30% or
more disability) -
Your name (Last/First name) -

Source

How did you become interested in
this job opening?

Manufacturing Institution F

M.F.I

Employment Application

DATE								
LAST NAME		FIRST NAME		MIDDLE NAME		SOCIAL SECURITY		
ADDRESS			CITY		STATE		ZIP	
TELEPHONE		MESSAGE PHONE 1st		MESSAGE PHONE 2nd		MODE OF TRANSPORTATION		
POSITIONS (S) DESIRED								
SHIFT PREFERENCE DAYS _____ EVENINGS _____ NIGHTS _____		TOWN/AREA YOU PREFER TO WORK		HOW DID YOU LEARN OF US? ADVERTISEMENT _____ FRIEND _____ WALK-IN _____ EMPLOYMENT AGENCY _____ RELATIVE _____ OTHER _____				
HAVE YOU EVER WORKED FOR US BEFORE? _____ YES _____ NO IF YES, WHEN AND WHERE _____								
ARE YOU REGISTERED WITH ANY OTHER FIRMS? YES _____ NO _____ NAME _____ TYPE OF WORK PERFORMED _____								
ARE YOU AUTHORIZED TO WORK IN THE U.S.? _____ YES _____ NO		HAVE YOU EVER BEEN CHARGED WITH A MISDEMEANOR OR FELONY (OTHER THAN A TRAFFIC VIOLATION)? _____ YES _____ NO IF YES EXPLAIN _____						
ARE YOU A VETERAN? _____ YES _____ NO								
EDUCATIONAL HISTORY								
SCHOOLS	ATTENDED		NAME AND ADDRESS OF SCHOOL		MAJOR/MINOR	GRADE POINT AVG.	GRADUATE YES-NO	TYPE DEGREE RECEIVED
	FROM Mo./Yr.	TO Mo./Yr.						
HIGH SCHOOL								
COLLEGE								
OTHER								
THIS SECTION MUST BE COMPLETED EVEN THOUGH A RESUME MAY BE SUBMITTED								
EMPLOYMENT HISTORY LIST LAST POSITION FIRST INCLUDE ANY MILITARY SERVICE AND PART TIME POSITIONS								
FROM		TO		EMPLOYER				
MO.	YR.	MO.	YR.	COMPANY NAME		TYPE OF BUSINESS		
				ADDRESS		PHONE #		
POSITION HIRED				LAST POSITION HELD				
NAME/TITLE OF SUPERVISOR				SALARY HISTORY-START		LAST		
DESCRIBE DUTIES OF POSITION								
REASON FOR LEAVING								
COMMENTS:								

M.F.2

FROM		TO		EMPLOYER			
MO.	YR.	MO.	YR.	COMPANY NAME		TYPE OF BUSINESS	
				ADDRESS		PHONE #	
POSITION HIRED				LAST POSITION HELD			
NAME/TITLE OF SUPERVISOR				SALARY HISTORY-START		LAST	
DESCRIBE DUTIES OF POSITION							
REASON FOR LEAVING							
COMMENTS:							
FROM		TO		EMPLOYER			
MO.	YR.	MO.	YR.	COMPANY NAME		TYPE OF BUSINESS	
				ADDRESS		PHONE #	
POSITION HIRED				LAST POSITION HELD			
NAME/TITLE OF SUPERVISOR				SALARY HISTORY-START		LAST	
DESCRIBE DUTIES OF POSITION							
REASON FOR LEAVING							
COMMENTS:							
FROM		TO		EMPLOYER			
MO.	YR.	MO.	YR.	COMPANY NAME		TYPE OF BUSINESS	
				ADDRESS		PHONE #	
POSITION HIRED				LAST POSITION HELD			
NAME/TITLE OF SUPERVISOR				SALARY HISTORY-START		LAST	
DESCRIBE DUTIES OF POSITION							
REASON FOR LEAVING							
COMMENTS:							

REFERENCES-LIST 3 PERSONS WE CAN CONTACT REGARDING YOUR VOCATIONAL PROFICIENCY (OTHER THAN IMMEDIATE SUPERVISOR OR FRIENDS)

NAME	WHERE EMPLOYED	TITLE/PERSON	BUS. PHONE #	HOME PHONE #

APPENDIX K

NURSING POSITION ANNOUNCEMENTS

Healthcare Institution A

Click Details to see more information about a job. This information will appear below the grid.
Click Apply to fill out a job application. You must be logged on as a registered user to apply for jobs.
Click a heading in the grid to sort by a group.

Job Group	Job Title	Requisition Code	Location	Department	Status	Weekend	Shift	FTE	Other Info	Education Type
Staff Nurse	Nurse, Registered	6891	Eastside	Intensive Care Stepdown - 4W	FT-Hrly	Every Other	Day/Night	1.0 (80 hrs/pay)		Nursing
Staff Nurse	Nurse, Registered	6843	Eastside	Respiratory/Gen Med - 6S	PT-Hrly	Every 3rd	Eve/Night	.5-.7 (40-56 hrs/pay)		Nursing
Staff Nurse	Nurse, Registered	6876	Eastside	Oncology - 6 East	FT-Hrly	Every 3rd	Eve/Night	.9-1.0 (72-80 hrs/pay)	1445-2315; 1845-0715; 2245-0715.	Nursing
Staff Nurse	Nurse, Registered	6877	Eastside	Renal/Diabetic - 6 West	FT-Hrly	Every 3rd	Night	.9-1.0 (72-80 hrs/pay)		Nursing
Staff Nurse	Nurse, Staff/PRN	6878	Eastside	Labor & Delivery/Antepartum - 3WCU	PRN	Includes	D/E/N	PRN .0		Nursing
Staff Nurse	Nurse, Registered	6879	Eastside	Renal/Diabetic - 6 West	FT-Hrly	Every 3rd	Day/Eve	.9-1.0 (72-80 hrs/pay)		Nursing
Staff Nurse	Nurse, Registered	6945	Eastside	Oncology - 6 East	FT-Hrly	Every 3rd	Night/Eve	.9-1.0 (72-80 hrs/pay)	1445-2315; 1845-0715; 2245-0715	Nursing
Staff Nurse	Nurse, Registered	6946	Eastside	Inpatient Rehab	FT-Hrly	Every Other	Night	.9 (72 hrs/pay)	2300-0700	Nursing
Staff Nurse	Nurse, Registered	6947	Eastside	Inpatient Rehab	FT-Hrly	Every Other	Night/Eve	.9 (72 hrs/pay)	1500-2330; 2300-0700	Nursing
Staff Nurse	Nurse, Registered	6918	Eastside	Intensive Care Unit	FT-Hrly	2 of 6	Night	.9 (72 hrs/pay)	1830-0700.	Nursing
Staff Nurse	Nurse, Registered	6973	Eastside	Freestanding Cath Lab-Admin	FT-Hrly	-	Days	.9 (72 hrs/pay)	Flex	Nursing
Staff Nurse	Nurse, Registered	6974	Eastside	Freestanding Cath Lab-Admin	FT-Hrly	-	Days	.9 (72 hrs/pay)	Flex	Nursing
Staff Nurse	Nurse, Staff/PRN	4873	Eastside	Vascular Access	PRN	Includes	D/E/N	PRN .0		Nursing
Staff Nurse	Nurse, Staff/PRN	4922	Eastside	Pediatrics - 4S	PRN	Includes	E/D/N	PRN .0		Nursing
Staff Nurse	Nurse, Registered	6987	Eastside	Renal/Diabetic - 6 West	FT-Hrly	Every 3rd	Night/Eve	.9-1.0 (72-80 hrs/pay)		Nursing
Staff Nurse	Nurse, Registered	6954	Eastside	Surgery	Casual	-	Days	.1 (8 hrs/pay)	0630-1500; 1030-2300	Nursing
Staff Nurse	Nurse, Registered	6549	Eastside	Cardiac Telemetry	FT-Hrly	Every 3rd	Night	.9-1.0 (72-80 hrs/pay)	RNs w/6mos. exp. required; PCCN certification preferred.	Nursing
Staff Nurse	Nurse, Registered	6564	Eastside	Endoscopy Suite	Casual	Includes	Day/Eve	.1 (8 hrs/pay)		Nursing
Staff Nurse	Nurse, Registered	6503	Eastside	Pediatrics - 4S	FT-Hrly	Every 3rd	Day/Night	.9 (72 hrs/pay)	Peds/PICU/NICU, flex/float.	Nursing

Primary Responsibilities:

The Registered Staff Nurse is responsible for appropriately utilizing the concepts of the nursing process in providing comprehensive care for assigned patients, in accordance with recognized nursing standards and hospital policies and procedures. The Registered Nurse recognizes that the caring relationship between a caregiver and the patient and his or her family is the core of the healing environment. The Registered Nurse sustains and supports individuals and families from the beginning of life through the end-of-life through compassionate caring, collaboration, education and advocacy. The Registered Staff Nurse practices in accordance with job description and competence assessment standards specific to the staff nurse position for each clinical area. The Registered Nurse is held accountable to nursing's professional and ethical standards as defined by the American Nurses Association's, Nursing's Social Policy Statement (ANA, 2003), Nursing Scope and Standards of Practice, etc.

Tasks Performed:**Essential Functions:****Minimum Physical Requirements:****Desired Education:**

Nursing

Desired Degree:

Graduate of an accredited school of professional nursing

Desired Major:

Nursing

Desired Job Experience:

RN – None required. RN with charge responsibilities -Must have one year of experience as a Registered Nurse in the designated area of practice.

Certifications Required:

Current licensure with the Indiana State Board of Nursing

Other Qualifications:

Healthcare Institution F

HomeCare

Branch	Division	Status	Position
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Branch Manager - RN
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	Central Intake	Part-Time	Authorization Specialist
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Per Diem	Licensed Social Worker (LSW)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Branch Manager - RN
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Branch Manager - RN
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Registered Nurse (RN)
	HomeCare	Full-Time	Branch Manager - RN
	HomeCare	Full-Time	Registered Nurse (RN)
	Therapy	Full-Time or Per Diem	Physical Therapist (PT)
	Therapy	Full-Time or Per Diem	Occupational Therapist (OT)
	Therapy	Full-Time	Physical Therapist (PT)
	Therapy	Per Diem	Physical Therapist (PT)
	Therapy	Full-Time or Per Diem	Occupational Therapist (OT)
	Therapy	Full-Time or Per Diem	Certified Occupational Therapy Assistant (COTA)
	Therapy	Per Diem	Speech Therapist
	Therapy	Full-Time or Per Diem	Occupational Therapist (OT)
	Therapy	Full-Time or Per Diem	Physical Therapist (PT)
	Therapy	Full-Time or Per Diem	Certified Occupational Therapy Assistant (COTA)
	Therapy	Per Diem	Physical Therapy Assistant (PTA)
	Therapy	Per Diem	Speech Therapist (SLP)
	Therapy	Per Diem	Speech Therapist (SLP)
	Therapy	Full-Time	Physical Therapist (PT)
		Per Diem	Speech Therapist (SLP)
	Therapy	Per Diem	Occupational Therapist (OT)
	Therapy	Per Diem	Occupational Therapy Assistant (COTA)

Healthcare Institution C

Position Postings

Position	Status	Job Summary	Position Requirements	Submit Applications to:
Lab Tech MT or MLT	Part Time days vary shifts vary	Responsible to provide courteous, responsive, and efficient service to both internal and external customers. Enters properly physician orders into LIS and processes specimen for testing. Demonstrates proper technique for blood samples both venous and arterial. Analyze blood and body fluids.	MT or MLT ASCP or equivalent MT or MLT	Human Resources Department
RN (Med/Surg)	PRN	Care for Patients on Medical/Surgical Floor; patient satisfaction.	RN Illinois License	Human Resources Department
Registered Pharmacist	Full Time	Manage Pharmacy with attention to regulatory compliance; knowledge of Pyxis; experience in hospital pharmacy; knowledge of HMS package a plus; must possess excellent customer service skills.	Pharmacy Degree	Human Resources Department

HOSPITAL IS A DRUG-FREE WORKPLACE - ALL POSITION OFFERINGS ARE BASED ON OUTCOME OF BACKGROUND CHECK AND DRUG SCREEN TESTING

Healthcare Institution D

WelcomeFind JobsSign In

Job Detail



To apply for this

Registered Nurse -

position, click on [Complete Application](#).



[Return to Previous Page](#)



[Email this job to a friend](#)

Job Title:
Job#:
Facility
Location:
Department:
Shift:
Schedule:
Hours per 2 week Pay Period:

Registered Nurse
0015
Hospital
Orthopedics
D/E/N
8/12 hour shifts
0

Job Description:

The Registered Nurse provides direct patient care; demonstrates the knowledge, critical thinking and judgement of and integrates the use of evidence-based outcomes for Nursing practice; supervises care delivered; coordinates plan of care; provides education for patients, families and staff, and collaborates with other disciplines. Must have at least one year acute care experience to be qualified.

APPENDIX L

MANUFACTURING POSITION ANNOUNCEMENTS

Manufacturing Institution A

JOB OPPORTUNITY

Job Title: **Maintenance Manager**

Location:

Reports To: **Bill**

Status: **Salary Exempt**

Responsibilities and qualifications for this position are listed below. If you feel as if you are interested and qualified, respond via e-mail to _____, Regional Human Resources Manager

OVERVIEW:

Reporting to the Plant Manager, the Maintenance Manager is responsible for effectively planning, directing and coordinating electrical, electronic, and mechanical activities throughout the facility as well as maintaining building integrity. This position directs engineering support for solutions to plant and production problems relating to equipment issues/modifications, functionality, and efficiencies. Within project management activities, you will work with contractors, install/replace equipment, train staff, transfer technical know-how, and participate in designing procedures for safe operation. This will be an active, hands-on, day-to-day assignment, where you will be our “go-to” expert to get-it-done.

Position Responsibilities include:

- Responsible for promoting safety awareness and keeping safety as a number one priority on a daily basis.
- Manage the weekly and monthly priorities and scheduling for the maintenance team.
- Coordinate work by outside contractors and supervise the maintenance team.
- Develops processes, methods, tooling and production equipment for new programs and supervises the installation, debugging, and pre-production activities.
- Develop, train, implement key result measures for the maintenance team.
- Lead and participate on project teams for technology development/capacity expansion in the organization.
- Develop and maintain the maintenance budget.
- Lead and participate in hands-on troubleshooting of systems and equipment.

- Manages the development and implementation of the best methods and processes to achieve the optimum properties and condition for the manufactured products.
- Responsible for various cost-savings programs and projects that have a significant impact on the organization's current and future competitive position.
- Responsible for the execution of all planned maintenance systems.
- Interfaces with vendors to stay informed concerning new manufacturing technology and equipment and their potential application.
- Ensures satisfactory operation of new processes or significantly upgraded process equipment.

Qualifications:

- BS in Engineering or equivalent.
- Minimum of 10 years leadership experience and technical training in a related industry.
- Solid understanding of manufacturing engineering methods, techniques, and practices including facilities management.
- Strong engineering knowledge including basic electrical, hydraulic & mechanical systems and ability to interpret specifications, blueprints, and schematics.
- Keen organizational skills with proven ability to complete multiple tasks
- Must be self-motivated, self-directed, results oriented and possess good working habits.
- Experience working with contractor installing machinery and modification of existing equipment.
- Project Management & Implementation experience required.
- Proven ability to lead, motivate, and provide direction in a positive manner.
- Proven ability to identify and prioritize areas of opportunity and take appropriate action.

JOB TITLE: Maintenance Technician - Electrical**LOCATION:****REPORTS TO:** Maintenance Supervisor**STATUS:** Hourly (Nights)

Interested and qualified candidates should forward their resume and letter of interest to _____, HR Manager.

Essential Duties and Responsibilities include the following. Other duties may be assigned.

- Preventative maintenance of molding and lining machines.
- Maintenance of electrical equipment.
- Maintenance of auxiliary equipment, such as, water pumps, sand filters, con-air material systems, vacuum pumps, plant lighting, hydraulic cylinder repairs, hydraulic valve repairs.
- Maintenance of other equipment such as, conveyors, forklifts, material elevators, and personnel lifts.
- Fabrication of electrical and mechanical equipment to be used in our facility.
- Maintenance of programmable logic controllers, relays, contactors, motor starters, and other related equipment.
- Installation and relocation of any equipment within the facility.
- Perform all activities (maintenance or otherwise) safely, including the use of LOTO as required by company policy.
- Conduct safety inspections of equipment and tooling prior to use.
- Within the confines of the job, ensure the safe operation of all equipment prior to turning it back over to the appropriate department.
- Document new/altered equipment safety checks or other change control documentation, as required.
- Promote plant goals such as Safety/Housekeeping, Quality, ISO, GMP, AIB and Gung Ho

Qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education and/or Experience

High school diploma or general education degree (GED); and twelve months related experience and/or training; or a combination of education and experience of at least twenty-four months. This employee will be designated as a Qualified Electrician. They MUST have training and/or licensing from a recognized electrical body.

Physical Demands

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is frequently required to stand; walk; sit; use hands to finger, handle, or feel; reach with hands and arms; and talk or hear. The employee is occasionally required to climb or balance and stoop, kneel, crouch, or crawl. The employee must occasionally lift and/or move up to 45 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

Qualified applicants will be interviewed. If you are not interviewed and would like to discuss how to prepare for future advancement, please contact Human Resources. An appointment will be scheduled to discuss your career interests and development.

EMPLOYMENT OPPORTUNITY

Job Title: Injection Molding Process Technicians

Location:

Reports To: Molding Supervisor

FLSA: Salary/Exempt

Interested and qualified candidates should complete an online application at

_____ **Corporation**, has immediate full-time openings for Injection Molding Process Technicians on 2nd, 3rd shift and weekend shift in our _____ **facility**.

RESPONSIBILITIES:

1. Set-up, repair, and troubleshoot Injection Molding equipment.
2. Maintain cavitation, cycle efficiency, achieve optimal processing parameters, and drive cycle time improvements.
3. Evaluate tooling, attend tooling meetings, and work with Mold Shop to maintain the tooling efficiency.
4. Provide direction, training, and coaching for Production Line Mechanics
5. Assist with shift supervision and fill-in supervisor as needed.
6. Drive Safety, Quality, and Productivity goals
7. Direct work activities of mechanics as needed.
8. Must perform any other assigned duties.

QUALIFICATIONS:

1. 5+ years experience in plastic injection molding processing.
2. Knowledge and application of scientific molding principals.

3. Strong mechanical aptitude and troubleshooting skills.
4. Some supervisory experience a plus.
5. Must have high school diploma or equivalent.
6. Must have excellent attendance.
7. Must have full understanding and experience in Injection Molding.
8. Must score 42 or higher on Bennett Mechanical Comprehension Test.
9. Must have five years Injection Molding experience.
10. Must be able to multi-task in a fast paced production environment.
11. Good communication and leadership skills.
12. Capable of physical mobility including walking, sitting, bending, twisting, standing, pushing, pulling and lifting (up to 50 pounds periodically)
13. Capable of visual acuity to include distinguishing color variation and detecting defects.
14. Able to work safely in a production environment around moving mechanical parts, recognizing various sounds and alarms.

EMPLOYMENT OPPORTUNITY

Job Title: Production Manager

Location:

Department: Molding

Status: Full-Time, Salary Exempt

Duties & Responsibilities:

- Responsible for all of the molding and decorating operations.
- Meet operational goals and objectives
- Responsible for staffing the department.
- Review schedule with scheduling department for maximum efficiency.
- Identify processes and create programs that will reduce costs.
- Manages Molding Supervisors who oversee the day to day manufacturing operations.
- Ability to effectively handle employee relation issues.
- Responsible for establishing and maintaining department budget.
- Responsible for efficiency of molding operation, cycle, and cavitation.
- Responsible for establishing Capital Expense requests.
- Responsible for producing quality parts.
- Assures that all customer orders are completed on time.
- Ensures all employees are working safely and enforces safety rules.
- Ensures that good housekeeping standards are maintained throughout the facility.
- Foster a positive working environment.

Qualifications

- B.S. degree or equivalent experience
- 10 – 12 years injection molding experience
- 5 – 10 years supervisory experience
- A background in a strong process controlled, sophisticated, structured, manufacturing management environment
- Possess good written, oral, and verbal communication skills.

Qualified applicants interested in this position can forward their resume to

Manufacturing Institution B

Test Technician

Job Description

In this position you will support product development by building product samples and performing engineering development, design verification, production validation, product conformance, or analysis testing. Build and maintain test fixtures needed to develop new products for production and verify that present and future products meet or exceed customer required specifications. Perform all phases of SMD soldering and SMD board repair.

DUTIES AND RESPONSIBILITIES:

- Perform all phases of SMD soldering and SMD board repair and coordinate all testing assigned.
- Testing for Product Design Validation: performing electrical, mechanical and environmental testing per customer specification on any HEC product, to meet annual certification requirements issued by the customer.
- Perform analysis of all test failures. Perform root cause analysis of such failures.
- Write and issue reports of experiments performed and data collected. Develop written procedures.
- Perform routine maintenance on all laboratory equipment including analysis of schematics and repairing.
- Perform analysis of completed devices, providing information to assist in correcting deficiencies and provide information to appropriate departments.
- Such other duties as the supervisor may deem necessary.
- Assist with training where appropriate and needed.

Job Requirements

EDUCATION, EXPERIENCE AND SKILLS:

- Associate Degree or equivalent technology certification in Electronics or three years experience understanding and using electronic equipment on a daily basis.
- Various Lab Test Equipment such as Oscilloscope, Resistance Bridge, Semiconductor Curve Tracer, DC Capacitance Bridge, Analog and Digital Multimeters, Function Generator, Various Electronic Gages and Hand Tools, Computerized Equipment. SMD soldering equipment, hand tools and miscellaneous power tools – drill, band saw, grinder.

Computer with word processing, spread sheet and data collection software.

Manufacturing Institution D



Position Description

Position: Group Lead / Supervisor

Location: NAO

Department: NAO Operations

Purpose: Execute the delivery of the scheduled shift / scope with the highest level of operations excellence, quality at a competitive cost.

Primary Responsibilities

1. Culture - Ensure compliance with Core Values and instill a culture based on performance, innovative thinking, and continual high quality customer service.
2. Service Line Delivery - Ensure the delivery of our scope of services meet the expectations of the customer.
3. Engaged Workforce - Create Best in Class engaged workforce.
4. Versatility Matrix - Train / coach the onsite work teams to meet the requirements in the versatility matrix.
5. Man-Hour Allocation and Material Usage - Develop the flow of the scheduled work to optimize man-hours.
6. Continuous Improvement - Kaizen / Continuous improvement of tasks / activities - update CBP's.
7. Customer - Maintain a visual board outlining site KPI's for customer's review.
8. Safety - Live the "ZERO" program - identify and eliminate the root cause to all accidents.
9. Information Sharing (Yokoten) - Network with colleagues / peers across shifts and departments to share ideas and opportunities to improve Premier's competitiveness.
10. Operating Norms - Align, abide and exhibit operating norms.
11. All other duties as assigned by site management.

Competencies and Behaviors

ADAPTABILITY

- Learning
- Self Responsibility

BUILDING A TEAM

- Communications
- Instructiveness

SYSTEM

- Structure
- Task Completion

SERVICING THE CUSTOMER

- Conflict Management
- Influence

Knowledge Skills and Abilities (KSA's)

Physical Demands

Must be able to push, pull, carry move and / or lift up to 20 lbs. frequently and / or a maximum of 50 pounds. Able to stand or walk up to 8-10 hours on a concrete surface.

Qualifications

Ability to exhibit each Behavior as defined and satisfactorily perform each Priority Task as stated.

Communication Skills

Able to communicate with team member and customer representatives.

Computer Skills

System, Microsoft Office, Resource Center hosted tools.

Language Ability

Ability to read and write effectively.

Math Ability

Ability to calculate figures and man hours, inventory budgets and percentages.

Reasoning Ability

Ability to conduct basic problem solving.

Supervisory Abilities

Ability to manage a team to complete scheduled scope of work at budgeted cost.

Work Environment

Able to withstand exposure to extreme heat or extreme cold weather for both inside and outside job tasks. Use of Personal Protective Equipment i.e. Hearing Protection, Steel Toe Shoes, Safety Glasses etc. as required for the task at hand. Must be able to withstand loud noise, have clear vision and hearing. Must be able to understand, read and write the English language.

Performance Competencies, Behaviors and Observable Activities

ADAPTABILITY : Willingness to deal with unexpected challenges or circumstances.

- **Learning** : Advancing knowledge, skills and abilities.

Observable Activity: *

Conducts regular shift meetings to learn from the team what can be done to improve service line delivery.
Seeks opportunities to learn and grow.

- **Self Responsibility** : Taking personal accountability.

Observable Activity: *

Takes ownership to "implement" others ideas for improvement.
Monitors visual boards and steps in as required to ensure positive trends.
Completes all required personal training /development.
Actively seek ways to make site safer.

BUILDING A TEAM: Demonstrates strong human relationship and interpersonal abilities in building strong productive teams.

- **Communications** : Giving and receiving information.

Observable Activity: *

Conducts regular shift meetings to seek feedback.
Conducts regular one-on-one meetings with all direct reports to seek feedback.
Has a clear and open communication with the customer.

- **Instructiveness** : Coaching, teaching or sharing information with others.

Observable Activity: *

Initiates self-assessments for all direct reports.
Ensures all members of the group have a clear understanding of what they need to do to improve.
Ensure all members of each work group are compliant with the versatility matrix.
Regularly completes safety walk-through's.

SYSTEM: Predictability in conforming to expectations for completing work. Shows reasonable flexibility in adapting to schedule changes, but needs to focus on anticipating factors that will cause reallocation of time. * Espanol: Previsibilidad en conforme a las expectativas para completar la labor. Muestra razonable flexibilidad para adaptarse a los cambios de horario, pero debe centrarse en anticipar los factores que causan reasignación de tiempo.

- **Structure** : Creating order and staying organized.

Observable Activity: *

Works with teams to ensure efficient work flow for all scheduled activities.
Keeps all required documentation current for the System.
Establishes visual reporting structure for all team leaders.

- **Task Completion** : Staying with a task until it has been effectively, promptly and thoroughly accomplished.

Observable Activity: *

Ensures all tasks have a current CBP / WIS that clearly outlines how the task is to be performed safely and efficiently.
Follows through to ensure service deliver is on track.
"Lives" the Zero program.

SERVICING THE CUSTOMER: Readily initiates actions to meet or exceed the needs of the customer.

- **Conflict Management** : Weighing in on and resolving differences.

Observable Activity: *

Follow through on all variances to KPI's and reports corrective actions to customer.
Seeks to fully understand the customers perspective.
Openly communicates customers goals for improvement with teams.
Inspects completed quality checklist to ensure standards are met.
Conduct shift safety walks.

- **Influence** : Gaining acceptance of ideas.

Observable Activity: *

Pushes team to continually identify and reduce all forms of waste in the system. i.e. - consumables, materials, man-minutes.

Set a strong example to promote an engaged workforce.
Continually promotes new ideas.

Measurable Goals

SAFETY: *

LEAD INDICATOR: 24 BATS

LAG INDICATOR: Reduce Site Consolidated TCIR.

Target: Lead 24 / Lag 10%

TALENT MANAGEMENT: *

LEAD INDICATOR: Service Line team has an active versatility matrix for all hourly

Maximize Premier Achievement Award Nominations.

Target: Lead 100%

CUSTOMER ENCOUNTER: *

Achieve documented cost savings.

Maintain active visual board.

Active engagement with quality audits.

Target: Lead 100% / Lag - 5

EDUCATION: *

LAG INDICATOR: % Red in the process portion of the RMA - consolidated for site.

Target: Lag 1%

PROFITABILITY ROCE: *

100% SSR's captured in CAFM

Target: 100%

STRATEGIC / SITE INITIATIVES: *

Implement corrective actions to impact targeted injury type (slips and falls).

Target: 100%

Job Description: Maintenance Technician

Purpose: The goal of a Maintenance Technician is to provide technical and mechanical support for the facility and to maintain the equipment to allow minimal downtime, quality and safety issues. Members in this position must have an understanding of electricity, hydraulics, pneumatics, machine, operations, etc.

Function	Task	Knowledge
Craftwork	Understanding of how machinery operates in order to make timely repairs. Ability to fabricate. Ability to operate related equipment and tools in area. Ability to troubleshoot malfunctioning equipment. Demonstration of safety & environmental practices will be observed.	<ul style="list-style-type: none"> Operation of process machinery in plant. Knowledge of PLC's, robotics, electrical circuits and components, pneumatics, hydraulics, welding, fabrication, etc. for repair of machinery. Ability to read drawings and programs Knowledge of safety & environmental practices. Ability to use appropriate troubleshooting equipment (meters, etc.)
Ability to learn	Learn and understand operation of machinery so mechanic can perform timely repair and preventative maintenance.	<ul style="list-style-type: none"> Mechanical aptitude, PLC, pneumatics, hydraulics, & electricity
Quality	Ability to perform quality repairs to machinery and quality fabrication that is within standards as required by designer, blueprints, etc.	<ul style="list-style-type: none"> Same as above
Follow Instructions	Ability to follow instructions as given by supervision.	
Cooperation	Show an attitude and willingness to work in a team environment and demonstrate willingness to take directives as required.	
Miscellaneous	Maintain 5-S standards. Perform all other duties as required by the management group.	
Safety/Environmental Regulations	Perform job duties within a manner that meets standards required by local, state, and federal regulations.	<ul style="list-style-type: none"> Ability to perform duties within regulation standards. OSHA, EPA, NFPA, NEC

Job Description: Engineering Technician

Purpose: The goal of an Engineering Technician is to provide technical support for the line in which they are assigned (seat, door, or welding) to allow minimal downtime, high quality products, high production efficiency and minimal safety issues through proper design, scheduling and decision making. Members in this position must have an understanding of electricity, hydraulics, pneumatics, layout, CAD, machine design, ergonomics, machine operations, TPS, etc.

Function	Task	Knowledge
Craftwork	Understanding of how machinery operates. Ability to operate related equipment and tools in area. Ability to troubleshoot malfunctioning equipment and support maintenance. Demonstration of safety & environmental practices will be observed.	<ul style="list-style-type: none"> Operation of process machinery in plant. Knowledge of PLC's, robotics, electrical circuits and components, pneumatics, hydraulics, welding, fabrication, etc. Ability to read drawings and programs Knowledge of safety & environmental practices. Ability to use troubleshooting equipment (meters, etc.)
Ability to learn	Learn and understand operation of machinery so technician can support maintenance.	<ul style="list-style-type: none"> Mechanical aptitude, PLC, pneumatics, hydraulics, & electricity
Ability to schedule own time	Prioritize projects and schedule projects	<ul style="list-style-type: none"> Scheduling aptitude, ability to follow up
Follow Instructions	Ability to follow instructions as given by supervision.	
Cooperation	Show an attitude and willingness to work in a team environment and demonstrate willingness to take directives as required.	
Miscellaneous	Maintain 5-S standards. Perform all other duties as required by the management group.	
Safety/Environmental Regulations	Perform job duties within a manner that meets standards required by local, state, and federal regulations.	<ul style="list-style-type: none"> Ability to perform duties within regulation standards. OSHA, EPA, NFPA, NEC
Supervision	Accurately schedule/plan the	<ul style="list-style-type: none"> Scheduling, follow up

	activities of outside contractors with Engineering, Manufacturing and Maintenance. Ensure contractors meet or exceed all plant rules.	contractor activities
Design	Design or modification of production equipment to produce high quality product, safely, ergonomically correct and meet production volume requirements.	

Job Description: Maintenance Group Leader

Purpose: The goal of a Maintenance Assistant Group Leader is to provide technical and mechanical support for the facility and to maintain the equipment to allow minimal downtime, quality and safety issues through proper scheduling and decision making. Leader must also lead the Maintenance Technicians in day to day operations and ensure they have the proper training to accomplish their tasks. A G/L's along with G/L's must implement and maintain Preventative Maintenance systems as well as predictive maintenance systems. Members in this position must have an understanding of electricity, hydraulics, pneumatics, machine, operations, etc.

Function	Task	Knowledge
Craftwork	Understanding of how machinery operates in order to make timely repairs. Ability to fabricate. Ability to operate related equipment and tools in area. Ability to troubleshoot malfunctioning equipment. Demonstration of safety & environmental practices will be observed.	<ul style="list-style-type: none"> ▪ Operation of process machinery in plant. ▪ Knowledge of PLC's, robotics, electrical circuits and components, pneumatics, hydraulics, welding, fabrication, etc. for repair of machinery. ▪ Ability to read drawings and programs ▪ Knowledge of safety & environmental practices. ▪ Ability to use troubleshooting equipment (meters, etc.)
Ability to learn	Learn and understand operation of machinery so mechanic can perform timely repair and preventative maintenance.	<ul style="list-style-type: none"> ▪ Mechanical aptitude, PLC, pneumatics, hydraulics, & electricity
Quality	Ability to perform quality repairs to machinery and quality fabrication that is within standards as required by designer, blueprints, etc.	<ul style="list-style-type: none"> ▪ Same as above
Follow Instructions	Ability to follow instructions as given by supervision.	
Cooperation	Show an attitude and willingness to work in a team environment and demonstrate willingness to take directives as required.	
Miscellaneous	Maintain 5-S standards. Perform all other duties as	

	required by the management group.	
Safety/Environmental Regulations	Perform job duties within a manner that meets standards required by local, state, and federal regulations.	<ul style="list-style-type: none"> Ability to perform duties within regulation standards. OSHA, EPA, NFPA, NEC
Supervision	Fairly and accurately schedule/plan the activities of the Maintenance Technicians to ensure smooth production of ATS parts and a safe productive working environment.	<ul style="list-style-type: none"> Scheduling, prioritizing, follow up maintenance activities, lead by example, training of technicians
Preventative and Predictive Maintenance	Implement and track effective preventative and predictive maintenance systems to ensure quality, safety and minimize equipment downtime.	<ul style="list-style-type: none"> Scheduling, prioritizing, follow up PM activities

APPENDIX M

HEALTHCARE INSTITUTIONS' INTERNAL COMMUNICATIONS

ISOLATION PRECAUTIONS

STOP

**PLEASE USE THE RECOMMENDED
PERSONAL PROTECTION.
IF YOU NEED ASSISTANCE, ASK
FOR THE NURSE.**

TYPE OF PRECAUTIONS

■ CONTACT ■ DROPLET ■ AIRBORNE





FALL RISK PROTOCOL

APPENDIX N**MANUFACTURING INSTITUTIONS' INTERNAL COMMUNICATIONS**

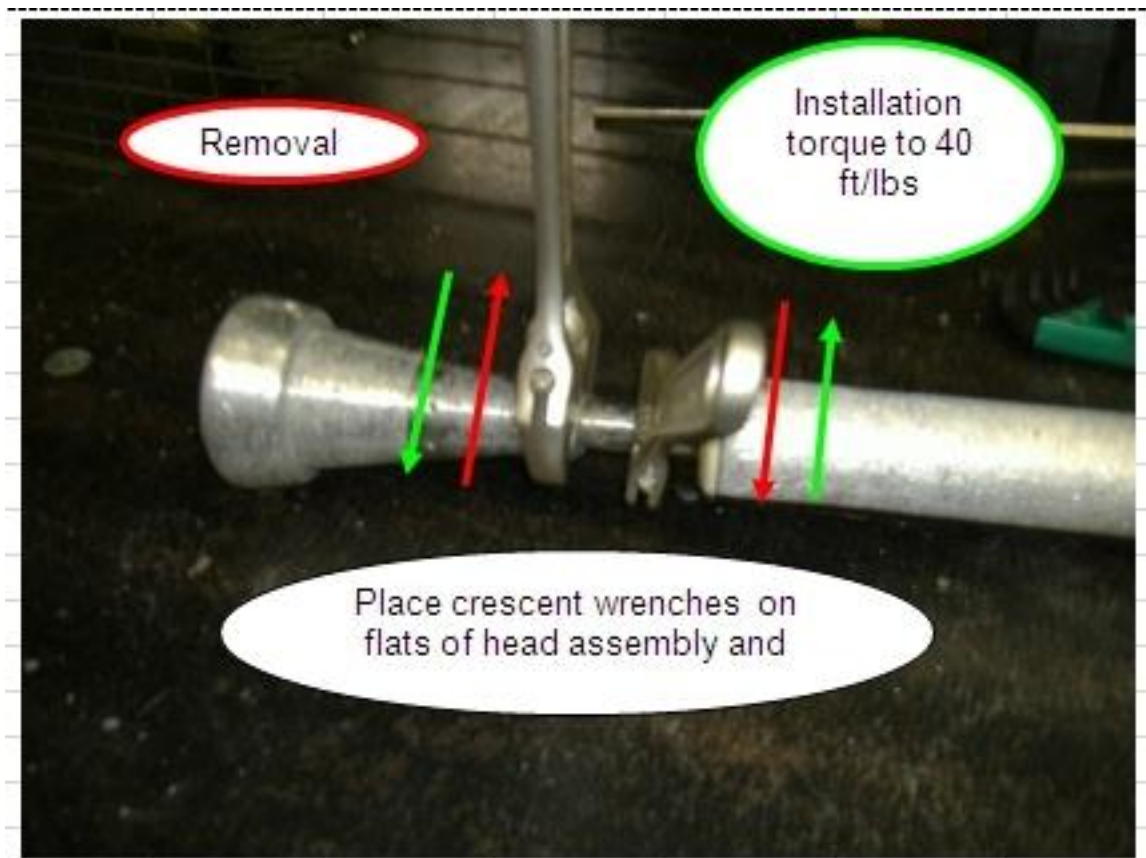


Figure 19

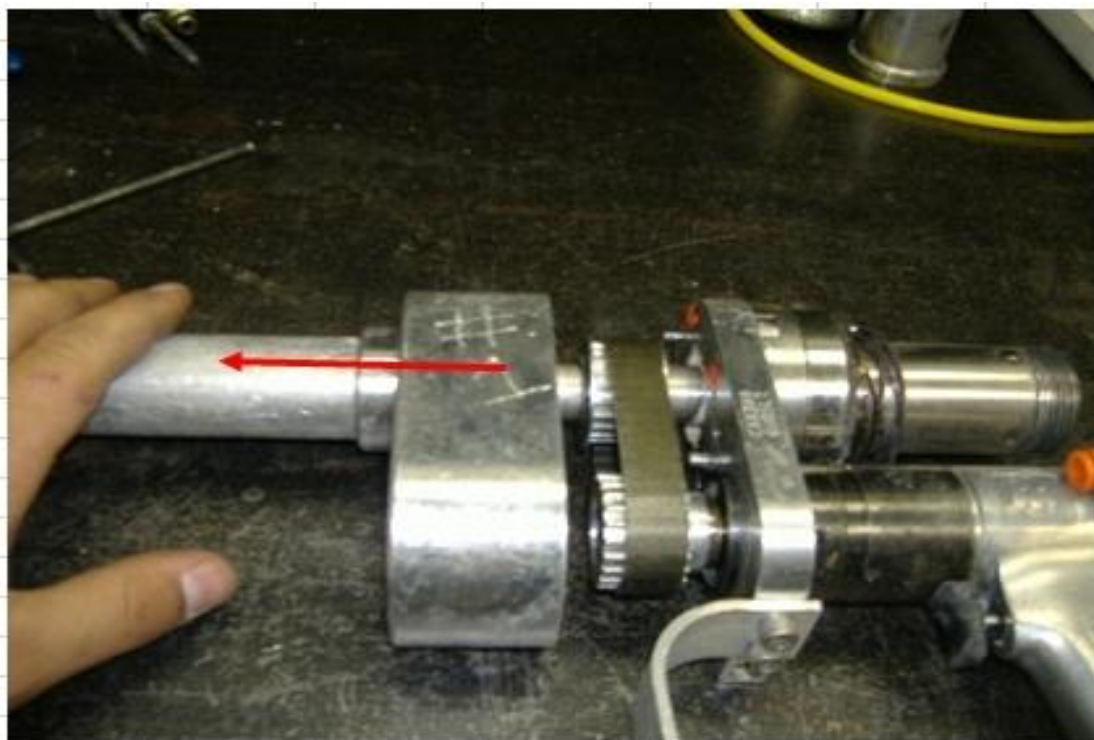


Figure 21

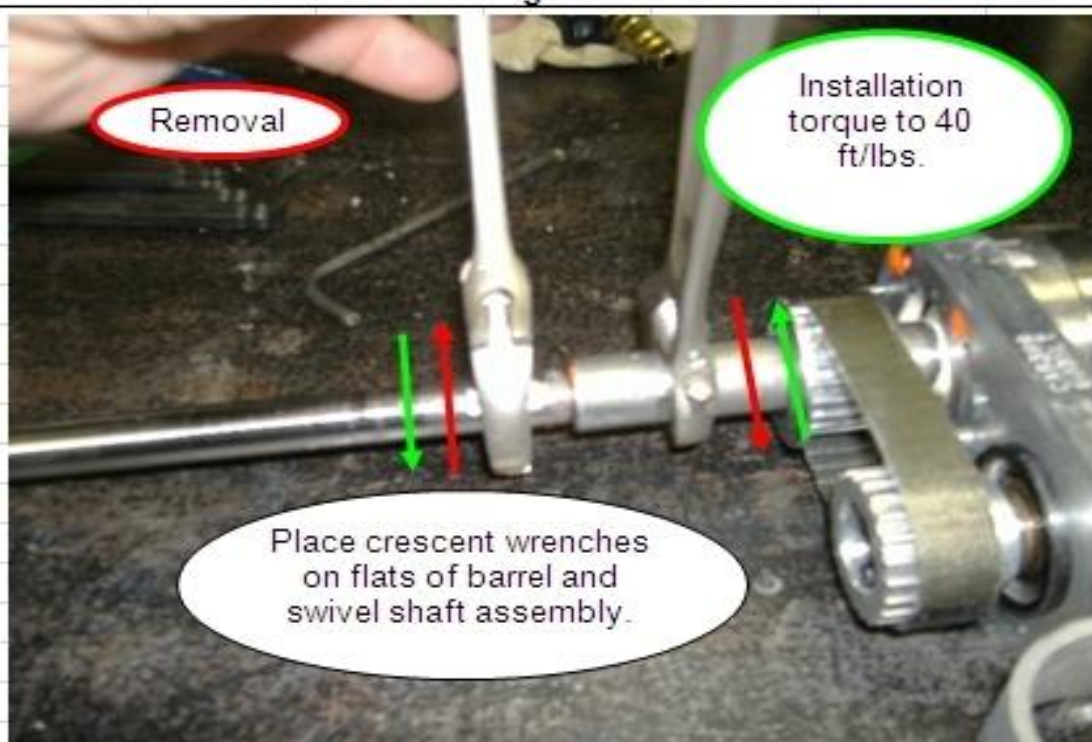
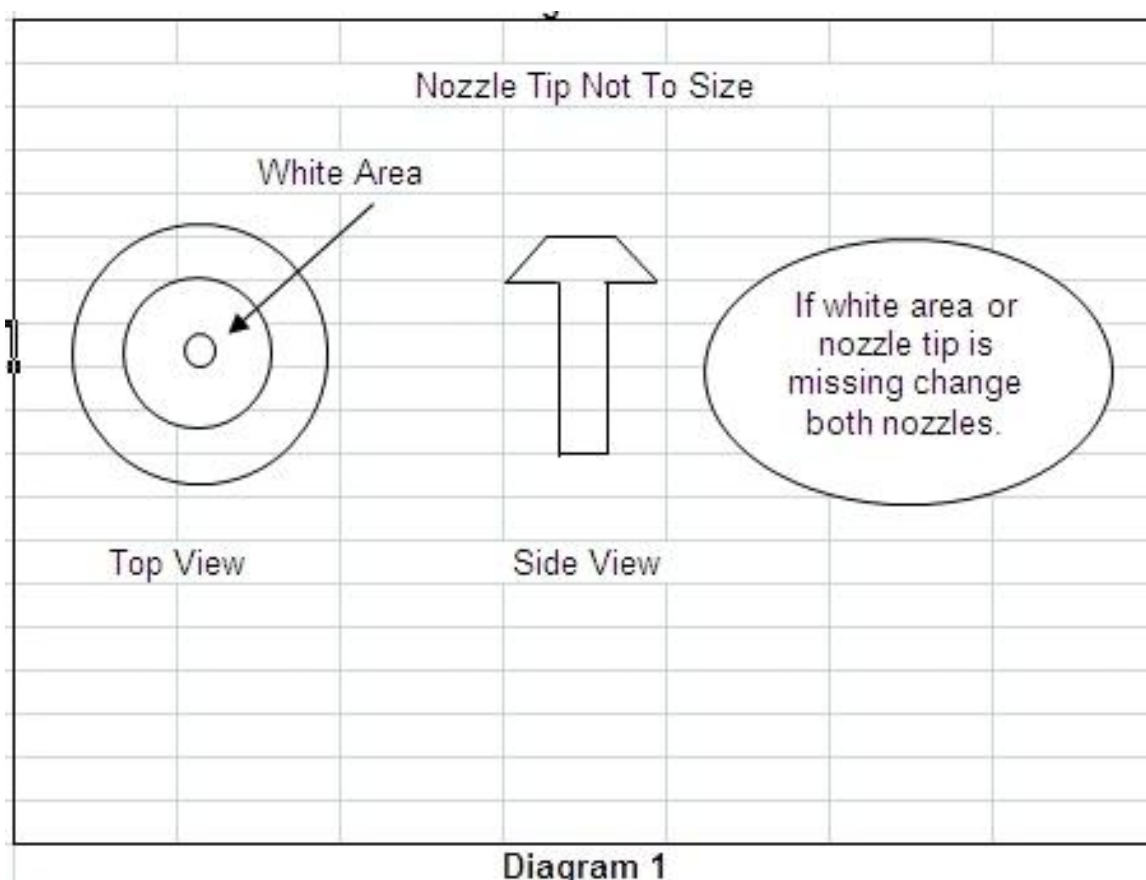


Figure 24



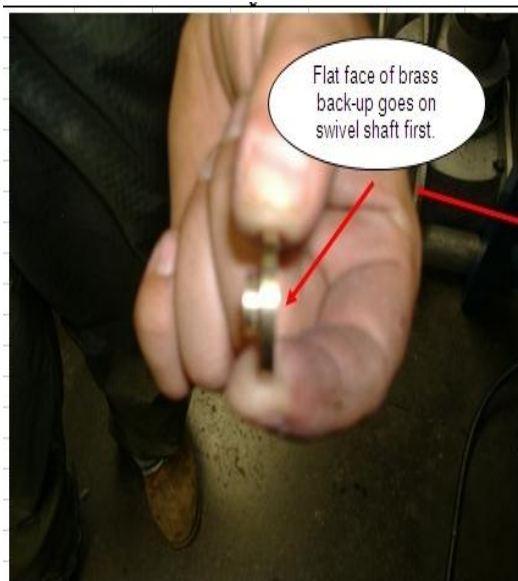


Figure 75

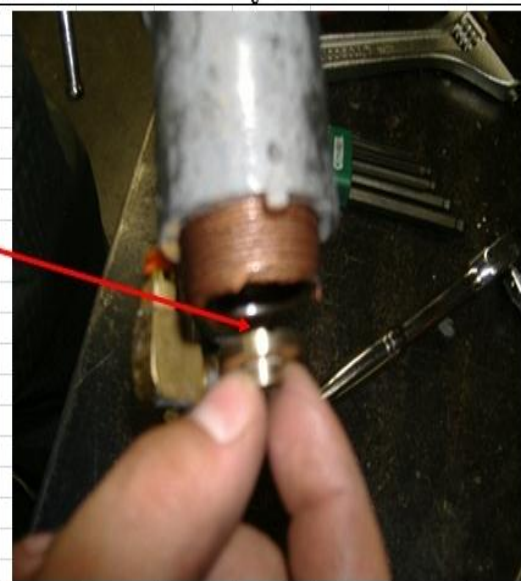



Figure 76

WORK INSTRUCTION SHEET/ JLA																					
PROCESS:	DOCUMENT NO.	PREPARED BY:	SHIFT:	HOURS:	T/L	G/L	CORD.	DIAGRAM													
Weekly NLB Lance PM																					
EQUIPMENT:	EQUIPMENT ID:	CONTENT REVISION NUMBER		REVISION NO.																	
NLB Lance																					
MODEL:	LOCATION:	RETAIN UNTIL:	PAGE:	OF:	OTHER POINTS																
<p>WARNING: FAILURE TO PERFORM PM IN ACCORDANCE WITH THIS WIS COULD RESULT IN INJURY OR DEATH TO THE OPERATING OR MAINTENANCE PERSONNEL!</p>																					
																					
<p>10 Review entire WIS for content, changes and instructions prior to performing task. 10 Specialized Training Required: TM must have current Waterblasting Training before PM can be completed.</p> <p>20 Don all PPE before performing task.</p> <p>30 Check lance Service Tag for issues incurred during previous usage. See Figure 1.</p> <p>40 If there is not a tag or communication left for Lance being serviced contact G/L.</p> <p>50 Check all "Cross Check" tamper proof torque marks for indication of movement.</p> <p>60 See Figure 2 (Note: There are 2 torque marks to verify if movement has occurred. Have lance cleaned).</p> <p>70 Put lance into bench vise and tighten down. See Figure 3.</p> <p>80 Remove retainer nut by pushing the anti-rotation sleeve toward the head and unscrewing the retainer nut. See Figure 4.</p> <p>90 Remove seal housing by pulling back away from the lance. See Figure 5.</p> <p>100 Remove 8hr seal from seal housing by inserting seal remover into the 8hr seal. See Figures 6, 7 & 8.</p> <p>110 Dispose of used 8hr seal to prevent later usage.</p> <p>120 Remove brass back-up ring using snap ring pliers into the 2 holes of the back-up ring and pulling back away from the lance. See Figure 9.</p> <p>130 Inspect brass back-up ring for deep scratches, nicks, burrs or 8hr seal material. If defects are noted dispose of the brass back-up ring and replace with new one.</p> <p>140 Remove anti-rotation sleeve by pulling it back away from the lance body. See Figure 10.</p> <p>150 Remove yellow tubing from front trigger assembly by pushing in on hose adapter and at the same time pulling out on the yellow tubing. See Figure 11.</p> <p>160 Inspect the rubber boot on the front trigger assembly for rips or tears. Replace if needed. See Figure 12.</p> <p>170 Connect air supply hose at work bench to lance. See Figure 13.</p> <p>180 Holding the yellow tubing away from you actuate the drill motor trigger until water stops blowing out. See Figure 14.</p> <p>190 Re-insert yellow tubing into hose adapter into the left hose adapter. See Figure 15.</p> <p>200 Actuate drill motor and front trigger. See Figure 16.</p> <p>210 Note: Air should come out of Bllode hose adapter. If air comes out trigger wheel only both triggers are actuated then trigger assembly is good. If air comes out when only one trigger (front or back) then trigger assembly is bad.</p> <p>220 See Figure 17.</p>																					
<p>170 Eye Hazard: Wear faceshield while actuating drill motor.</p> <p>180 Enanglement Hazard: Keep loose clothing, hair, jewelry, and gloves away from rotating parts.</p>																					
<p>SAFETY PREPERUIT</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>NO.</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>Hard Hat</td> </tr> <tr> <td>20</td> <td>Safety Glasses</td> </tr> <tr> <td>30</td> <td>Steel Toed Shoes</td> </tr> <tr> <td>40</td> <td>Surgical Gloves</td> </tr> <tr> <td>50</td> <td>Face Shield</td> </tr> </tbody> </table>										NO.	NO.	10	Hard Hat	20	Safety Glasses	30	Steel Toed Shoes	40	Surgical Gloves	50	Face Shield
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<p>KEY FOR OTHER POINTS</p> <p>QUALITY SAFETY ENVIRONMENTAL PRODUCTIVITY</p>																					

Page 1

APPENDIX O

PEER DEBRIEFING COMMUNICATION

January 31, 2012

Matt Fowler
2200 College Dr.
Mt. Carmel, IL 62863

Dear Matt:

Thank you for your faith in my ability to discern the skill set of a high level nurse. It is not an easy process to determine the level of skill a nurse brings to the table during the application and interview phases of the hiring process. I appreciate your work in trying to make that process a little easier through the use of electronic portfolios at Wabash Valley College. I have reviewed the themes and subsequent templates that were developed within the nursing discipline in your dissertation. As you will recall, I posed questions about the inclusion of certifications, satisfaction surveys, continuing education, and the alignment of an applicant's goals with the mission/vision of a healthcare institution. Upon a review of the full text of the dissertation I see where participants spoke to these same needs and I see how you have included them in the template.

Based on a review of the data presented in this study, the themes that were developed in the study and the conclusions that lead to the development of a template for nursing students, it is my opinion that the template would be of value to human resource professionals in the pre-employment screening of nursing applicants.

Sincerely,

A handwritten signature in cursive script that reads "Lori Phillips".

Lori Phillips DNP, RN, NP-C



February 1, 2012

Mr. Matt Fowler
2200 College Dr.
Mt. Carmel, IL 62863

Dear Matt:

In the many years I have worked in human resources I have found it is not easy to determine the skill level of an applicant in the manufacturing field. The use of electronic portfolios will give us a better glimpse at what an applicant has done in the past and may help us to make better decisions during the hiring process.

I have reviewed the themes and subsequent templates that were developed within the manufacturing discipline. I find the template to include the types of information that would be useful in hiring a skilled employee in the manufacturing field. I believe that the template would be of value to other human resource professionals in the pre-employment screening of applicants for skilled positions in the field of manufacturing.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Patricia L. Berry'.

Patricia L. Berry
Employee Relations Mgr.



315 North West Street • West Salem, IL 62476-0307 • 618-456-8831 • FAX 618-456-2260
200 S 4th Street • Albion, IL 62806-1313 • 618-445-6011 • FAX 618-445-4040
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